DOCUMENT RESUME

ED 141 639 CE 011 997

AUTHOR	Pautler, Albert J., Jr., Ed.
TITLE	The Future of Vocational Education. Papers from the Bicentennial Conference on Vocational Education (Minneapolis, Minnesota, October 10-13, 1976).
INSTITUTION	Ohio State Univ., Columbus. Center for Vocational Education.
SPONS AGENCY	National Advisory Council on Vocational Education, Washington, D.C.
PUB DATE	77
NOTE	235p.; For a related document see CE 011 168
AVAILABLE FROM	Ohio State University, Center for Vocational Education, 1960 Kenny Road, Columbus, Ohio 43210 ($13.00)
EDRS PRICE	MF-$0.83 HC-$12.71 Plus Postage.
DESCRIPTORS	Conference Reports; Curriculum; Delivery Systems; Disadvantaged Groups; *Educational Planning; *Educational Policy; *Futures (of Society); Handicapped Students; Manpower Development; Minority Groups; Public Policy; *Vocational Education

ABSTRACT

Manpower education policy, planning, curriculum content, the needs of special populations, and delivery systems are the major topics of these 21 papers presented by various vocational leaders at the National Bicentennial Conference on Vocational Education. The titles of these presentations include "On Thinking about Vocational Education Policy," "The Place of Skill Acquisition in a National Manpower Policy," "Education for What," "Vocational Educational Futures: Some Sociological Dimensions and Considerations," "An Economist's (Solicited and Surprisingly) Cheerful Message to Vocational Educators," "The Demographic and Employment Perspective for the Future of Vocational Education," "Future Political Impact on Vocational Education Planning," "International Issues Related to the Future of Vocational Education and Training," three papers titled "What Should Be Taught in the Future," "Labor and Vocational Education--"What Should Be Taught," "Meeting the Future Vocational Education Needs of American Natives," "The Implications of the Future Participation of Minorities and Women in Vocational Education Programs," "Meeting the Needs of the Handicapped," two papers on 'The Future of Vocational Education: A Youth Perspective," "Comprehensive Competence Based Education--A Bridge between Liberal and Applied Learning in Post-Secondary Education: America's Contribution to the Future of Education," "Vocational Education Delivery Systems of the Future," "Future Vocational Education Delivery Systems," and "Education for Work--A National Imperative" (the keynote address by Congressman Albert H. Quie). A conference summary with commentary by Edward B. Fiske and a conference overview and recommendations, prepared by Albert J. Paultler, are also included. (BM)

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ED141639

THE FUTURE OF VOCATIONAL EDUCATION

Papers from the Bicentennial Conference on Vocational Education,
Minneapolis, Minnesota, October 10–13, 1976

Edited by

Albert J. Pautler, Jr.
State University of New York at Buffalo

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Published by

The Center for Vocational Education
The Ohio State University
Columbus, Ohio
1977

Sponsored by

The National Advisory Council on Vocational Education
Washington, D.C.

OE-011 997

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PREFACE

The National Advisory Council on Vocational Education extends its appreciation to The Center for Vocational Education at The Ohio State University for its cooperation in the publication of the papers presented at the National Bicentennial Conference on Vocational Education. The Conference was sponsored by the National Advisory Council on Vocational Education and by the State Advisory Councils on Vocational Education on October 10–13, 1976, in Minneapolis, Minnesota.

The papers presented were commissioned by the National Advisory Council on Vocational Education. It is the intent of the Council that these papers receive the widest distribution possible. With the assistance of The Center for Vocational Education, the Council is assured that the papers will be available to all those interested. Opinions expressed in these papers are those of the authors, and do not necessarily reflect the positions or policies of the National Council, or of the State Councils, and no official endorsements should be inferred.

Hopefully, these papers will prove of great interest to all those involved in leadership development programs in general and specific areas of vocational, technical, adult, and career education.

The National Council sincerely hopes these papers will prove a valuable source of information to those concerned with the future direction and planning of vocational education.

John W. Thiele, Chairperson
National Advisory Council on
Vocational Education

FOREWORD

The Center for Vocational Education is pleased to join with the National Advisory Council on Vocational Education to make available the papers presented at the National Bicentennial Conference on Vocational Education. The conference was the highlight of the bicentennial year for vocational education.

The presentations by 21 leaders in various fields provided valuable insight into the problems and issues that face us in the Nation's third century. Manpower policy, planning, curriculum content, the needs of special populations, and delivery systems were each considered from diverse perspectives. The opinions expressed in these papers are those of the authors and do not necessarily reflect the position or policy of The Center for Vocational Education.

The Center joins with the National Council in the hope that these papers will provide a valuable source of information for the future direction and planning of vocational education.

Robert E. Taylor, Director
The Center for Vocational Education

TABLE OF CONTENTS

KEYNOTE ADDRESS 1

Congressman Albert H. Quie, Honorary Conference Chairperson, and Ranking Minority Member, Committee on Education and Labor, U.S. House of Representatives

SECTION I: EDUCATION-MANPOWER POLICY 9

ON THINKING ABOUT VOCATIONAL EDUCATION POLICY 9

Henry David, Professor, Public Affairs
University of Texas at Austin

THE PLACE OF SKILL ACQUISITION IN A NATIONAL MANPOWER POLICY 23

Eli Ginzberg, Chairperson
National Commission on Manpower Policy

EDUCATION FOR WHAT? 29

Willard Wirtz
National Manpower Institue

SECTION II: PLANNING FOR VOCATIONAL EDUCATION IN THE FUTURE 39

VOCATIONAL EDUCATIONAL FUTURES: SOME SOCIOLOGICAL DIMENSIONS AND CONSIDERATIONS 39

David Gottlieb, Dean, College of Social Sciences
University of Houston

AN ECONOMIST'S (SOLICITED AND SURPRISINGLY) CHEERFUL MESSAGE TO VOCATIONAL EDUCATORS 53

Sar A. Levitan, Director, Center for Social Policy Studies
The George Washington University

THE DEMOGRAPHIC AND EMPLOYMENT PERSPECTIVE FOR THE FUTURE OF VOCATIONAL EDUCATION 63

Janet A. Norwood, Deputy Commissioner for Data Analysis
U.S. Bureau of Labor Statistics

FUTURE POLITICAL IMPACT ON VOCATIONAL EDUCATION PLANNING 73

Evron Kirkpatrick, Executive Director
American Political Science Association

INTERNATIONAL ISSUES RELATED TO THE FUTURE OF VOCATIONAL EDUCATION AND TRAINING 91

Gordon I. Swanson, Professor, Vocational Education
University of Minnesota

SECTION III: WHAT SHOULD BE TAUGHT 97

WHAT SHOULD BE TAUGHT IN THE FUTURE 97

Thelma T. Daley, President
American Personnel and Guidance Association

WHAT SHOULD BE TAUGHT IN THE FUTURE

Guy H. Dobbs, Vice President, Development and Program Planning, Special Business Division, Xerox Corporation. (Although Mr. Dobbs gave this presentation at the conference, the paper was not made available for this publication.)

WHAT SHOULD BE TAUGHT IN THE FUTURE 109

James L. Hammond, Chancellor
The Massachusetts State College System

LABOR AND VOCATIONAL EDUCATION—"WHAT SHOULD BE TAUGHT?" 115

Walter G. Davis, Director of Education, AFL—CIO

SECTION IV: SPECIAL NEEDS 129

MEETING THE FUTURE VOCATIONAL EDUCATION NEEDS OF AMERICAN NATIVES 129

Calvin Dupree, Associate Professor, Native American Studies
University of Lethbridge, Canada

THE IMPLICATIONS OF THE FUTURE PARTICIPATION OF MINORITIES AND WOMEN IN VOCATIONAL EDUCATION PROGRAMS 137

Carol Gibson, Director of Education
National Urban League

MEETING THE NEEDS OF THE HANDICAPPED 157

Marc W. Gold, Research Associate Professor
Institute for Child Behavior and Development
The University of Illinois

SECTION V: THE YOUTH PERSPECTIVE 165

THE FUTURE OF VOCATIONAL EDUCATION: A YOUTH PERSPECTIVE 165

Frederick McClure, Student

THE FUTURE OF VOCATIONAL EDUCATION: A YOUTH PERSPECTIVE 169

Paula Gibson, Student

SECTION VI: DELIVERY SYSTEMS FOR VOCATIONAL EDUCATION 175

COMPREHENSIVE COMPETENCE BASED EDUCATION—A BRIDGE BETWEEN LIBERAL AND APPLIED LEARNING IN POST-SECONDARY EDUCATION: AMERICA'S CONTRIBUTION TO THE FUTURE OF EDUCATION 175

G. Theodore Mitau, Chancellor
Minnesota State College System

VOCATIONAL EDUCATION DELIVERY SYSTEMS OF THE FUTURE 191

Carolyn Warner, Superintendent of Public Instruction
The State of Arizona

FUTURE VOCATIONAL EDUCATION DELIVERY SYSTEMS (Summary of Speech) 201

Maurice B. Mitchell, Chancellor
University of Denver

SECTION VII: CONFERENCE SUMMARY STATEMENT 203

SUMMATION AND COMMENTARY 203

Edward B. Fiske, Education Editor
The New York Times

SECTION VIII: CONFERENCE OVERVIEW AND RECOMMENDATIONS 211

THE FUTURE OF VOCATIONAL EDUCATION 211

Albert J. Pautler, Jr., Professor
State University of New York at Buffalo

KEYNOTE ADDRESS

EDUCATION FOR WORK—A NATIONAL IMPERATIVE

Albert H. Quie, M.C.
Minneapolis, Minnesota

I deeply appreciate having been selected honorary chairman of this Bicentennial Conference on Vocational Education. I am delighted that the National Advisory Council chose Minnesota as the conference site. And since there are others who deserve this honor more than I, one discerns some connection between the selection of the site and the designation of the honorary chairman. In any event, it is a happy occasion for me and an important one for us all.

A national centennial is an occasion not only to celebrate the events and achievements which have brought us so far, but also to determine where we are and where we have yet to go. It is time to take stock. It is a time to look ahead. And that is what this conference is all about. The participants in this conference are drawn from the leadership in education, business and industry, labor, and community affairs in communities all across the nation. You have assembled some of America's foremost experts and scholars in the fields bearing upon vocational education to help lead your discussions. And the focal point of your concern is one of urgent national interest.

Vocational Education is first and foremost education for work. Effective education for work is not merely one item in a laundry list of national concerns—it is a national imperative.

It is time that we clear away the underbrush of rhetoric and rationalization which obscure our view of the greatest contemporary cause of economic and social malfunction—the inability to perform a useful, available job. Today almost all available jobs require basic academic and specialized job skills; there are fewer and fewer useful jobs without such requirements. Even in an economic downswing, the person with skills has hope of finding a job; when the economy turns upward the hope becomes a certainty. But we have left all too many people today without skills and without hope—people who experience chronic joblessness and chronic despair.

People do not aspire to joblessness, to dependence, to despair, or to crime. They certainly do not wish for these things for their children. People aspire to productive employment as a basic goal in life, as well as a means to the achievement of other goals. An education which does not lead to productive employment is a "luxury" few can afford; for most persons it is a tragic waste.

The realization of the extent and consequence of the waste of human resources in our society is, of course, the reason we are gathered here. Our bicentennial reflections have reaffirmed our ability as a people to make great dreams a reality. As a free people in a nation founded on the principles of freedom, we are willing to recognize and take responsibility for our problems and the needs of our fellow citizens. We are responsible and we are responsive. Our whole history is one of great challenges met and enormous difficulties overcome. Surely we can overcome the problems which lead so many of our fellow citizens to economic dependence. We already have the tools, we have a system of free public education available to all which is augmented by good private schools. Within that system we have a vocational education component stronger than it has ever been, and incomparably better than it was a mere decade ago. Our task is to learn to use these tools effectively. We must make our institutions as responsible and as responsive as our individual citizens.

I am absolutely confident that we shall have accomplished that task before we are very far along. Your participation in this conference, and the fact that you represent to a remarkable degree a cross-section of the whole American people, is a good indication of success.

As we examine the problems confronting us it is useful also to glance back. Among other uses, a look back can give us courage.

The Smith-Hughes Vocational Education Act became law nearly sixty years ago, in February of 1917—near the end of the 63rd Congress, as a new Presidency and a new Congress did not then begin until March 5 of the following election. The bill, S. 703, had first passed the Senate on July 31, 1916. It had then been taken up in the House and had been unanimously reported by the House Committee on Education, under the Charmanship of Representative Dudley M. Hughes of Georgia. Senator Smith, also of Georgia, had introduced the bill in the Senate. Ironically, by the time the bill reached the House floor in January of 1917 Representative Hughes had been defeated for renomination and was a lameduck Chairman Guiding a major bill through the House. Nevertheless, he was very successful. Despite the fact that it was recognized as landmark legislation pointing toward a major federal role in education, it passed both the House and the Senate by voice vote. In the House, only one member—a Democrat from Texas, I am happy to report—spoke against the bill on the grounds of his fear of the beginning of federal control of education. The objection was not given much credence.

Not unlike the 1963 Vocational Education Act, the Smith-Hughes Act was solidly based upon the findings of a blue-ribbon commission, appointed by President Wilson in 1914 pursuant to a Congressional Resolution. As many of you recall, the 1963 act was based upon the recommendations of a commission appointed by President Kennedy and chaired by Dr. Martin Essex of Ohio. The 1914 panel, like that of 1962, was broadly representative of business and industry, labor, education, the Congress, and the general public. Remarkably for those days, its membership included two women. Unlike the 1962 commission, the one formed in 1914 actually drafted the legislation which was introduced in Congress.

As a result, the bill had very broad support in the country—it was endorsed by such organizations as the American Federation of Labor, the National Education Association, the National Grange, and by business and industry groups—and it had very broad bi-partisan support in Congress.

It is interesting to go back and read the debates on S.703 which occurred during 1916 and 1917. Interestingly enough, on the very eve of our entry into World War I national defense was scarcely mentioned as a reason for approving a vocational education bill. But the superiority of Germany in industrial and agricultural production was cited frequently, and Germany was held up as a model of opportunity for all young people to obtain a vocational education. During the debate in the House on January 9, 1917, for example, Representative Candler of Mississippi made this comparison:

> In this whole country there are fewer trade schools than are to be found in the little German Kindom of Bavaria, with a population not much greater than that of New York City. There are more workers being trained at public expense in the city of Munich alone than in all the larger cities of the United States, representing a population of more than 12,000,000. It is substantially true that practically every German citizen who could profit by it may receive vocational training for his life work in schools and classes supported out of public treasury, and this accounts largely for the efficiciency and progress of the German people.

Perhaps recognizing that they were acting too late to help win a possible involvement in war, Members of Congress in this debate expressed a deep concern that America might lose the struggle for economic and commercial supremacy after the war.

There was also a conviction that the benefits of scientific agriculture had to be more widely utilized. The sponsors of the Smith-Hughes Act saw it as building upon the Land Grant College Acts of 1862 and 1890—the Morrill Acts—and particularly upon the Smith-Lever Act of 1914 which established our system of agricultural extension work at the county level. Senator Smith saw his bill as a means of bringing that work to the town level and of working directly with farm children as the extention agent worked with their parents. It was hoped also that this would slow the precipitous shift of population from rural to urban areas.

There was expressed a concern about urban crime, a large proportion of which even then was attributable to unemployed youth. There were concerns expressed about the political effects of lack of proper education of the sons and daughters of working people and of recent immigrants—the fear of growing influence of anarchists and socialists. But the main concern expressed over and over again in those debates was for people—for making real and tangible the American promise of equal opportunity. From the outset, that really was what the national vocational education acts were all about. As Senator Smith expressed it:

> Each year 2,500,000 graduate from our elementary schools, proud and confident of having accomplished the first great task of their lives in successfully finishing their eight years' course with credit. An equal number of children, a vast army of two and a half million, most of them only 14 years of age, leave the same schools discredited, unsuccessful, aimless, most of them having gotten no further than seventh grade, not educated in any sense, but only possessed of the rudiments whereby real education may be acquired. They have been schooled only in how to fail.

With a change in grade levels and numbers, how true that is even today, after more than a half century of vocational education and with educational opportunity, at least in theory, open to all levels. But while we tread warily around the so-called "class issue"—the fact that a disproportionately high percentage of young people from low and lower-middle income families take advantage of vocational opportunities—the proponents of the Smith-Hughes Act met it head-on. They saw saleable skills as a means of self-sufficiency and social mobility which otherwise would not be available. They saw vocational education as an opportunity for all, but most particularly for the sons and daughters of working people and farmers. As Senator Smith argued:

> . . . less than 2 out of every 100 of our American boys and girls ever reach the college or university. Indeed, more than nine-tenths of them never pass from the elementary school to the high school . . . it is now generally conceded that the only way in which the average boy . . . can be induced to continue his school life is by showing him that what he is to learn . . . will enable him to command a better wage when he goes out into the world . . .

In the House, Representative Sloan of Nebraska, summarized our educational situation in those days and made this argument for vocational education:

> Eighty-five percent of the children entering our public schools leave before they are 16 years of age; less than 8 percent of our students entering the high school graduate therefrom. Few young men or women learn a trade. In fact, learning a trade through the old course of apprenticeship is seldom followed. And yet coordination of skilled hand and disciplined brain is

more imperatively demanded now than ever before. The individual needs it for his own physical and intellectual development. The nation needs it that its citizenship may be effective in the arts of peace and the methods of war.

Upon this same kind of analysis, and pointing out the limited opportunities for the children of working people, the legendary Samuel Gompers, President of the American Federation of Labor, strongly endorsed vocational education. President Wilson's Secretary of Commerce, William C. Redfield, had long been president of the National Society for the Promotion of Industrial Education. It was at a meeting of that society, held here in Minneapolis in January of 1916, that Secretary Redfield emphatically rejected the argument that vocational education is an attempt to freeze people into economic or social classes. He said:

> We seek the opportunity for personal growth, the expansion of individual power, the open door to life in which men and women might find themselves . . . we expect to add to labor's self respect, and give back some of its lost dignity and restore pride in good workmanship and a fine product . . ..
>
> We believe that the education we seek to promote is not class education, that it is not to educate the workmen to be only a workman. It is that. It is much more than that . . ..
>
> We do not seek, as some, to educate our children into the mill. . . it is no part of our creed and no fair inference from it that all are to be worked in the work of industry . . . we would both train and select and give scope to every aptitude. We would, however, have them do not only with their minds but with their brains what their hands find to do.

I think that would be a fair statement of our intentions today for vocational education. I have attempted to present this glimpse of the beginnings of federal support for a system of vocational education in order that we might put the problems of today in better perspective. Economic and social conditions, and education, have changed in ways that were unimagined in 1917. Yet there is an abundance of the same kinds of human needs to be met. Vocational education exists not as a haphazard experiment, but as a strong and viable component of a vastly expanded education system; and it is capable of meeting the needs of our time.

There is another reason for looking back. I think we need to remind ourselves that vocational education in large measure succeeded in the great task set before it. True, when Congress and the nation next made a searching examination of vocational education in 1962-63, we found it woefully inadequate to the needs we recognized then. But that was 45 years later. In those 45 years millions of sons and daughters of farmers and working men and immigrant families, as well as those higher on the economic scale, had profited mightily from vocational education. I think it is an important point to make—and one we must keep in mind for the future—that vocational education became a victim of its own success. Although the times and needs have vastly changed, vocational education was doing so well what it was designed to do in 1917 that it refused to do anything else. It had become stuck in time, and how well I remember the anguish of leading vocational educators when the Congress in 1963 determined to get it unstuck. One of the prime functions of the National and State Advisory Councils on Vocational Educaton is to see to it that it does not become stuck in time again. From the theme of this conference—"Vocational Education for the Future"—it is apparent that this function is being carried out.

As you know, we have just completed work on comprehensive amendments to the 1963 Act. It is our hope and belief that in very significant ways these changes in the Federal Statute are designed

to assure that we meet future needs in vocational education. While it is not my purpose to describe in detail the new law—which incidentally will become operative for fiscal 1978, leaving present law unchanged for one year—I would like to highlight some of its provisions.

First, we changed the structure of the Act. Seven existing program authorizations (one from the Education Professions Development Act), plus two new ones, are folded into a single grant to the state. Eighty percent of that grant may be used for operating programs and 20 percent for support programs such as research, innovation, curriculum development, counseling and guidance, and pre- and in-service personnel training. Five percent of the total grant must be spent for counseling and guidance activities, and these must include programs to utilize people from business and industry in school counseling and to give school counselors an opportunity to obtain useful experience in business and industry. We retain categorical grant programs for bilingual training, consumer and homemaking education, and special programs for the disadvantaged, and add a new one for emergency assistance for remodeling and equipping facilities in economically depressed urban and rural areas. But the overall thrust is one of major program consolidation. We feel that this will retain the needed emphasis on certain programs—such as cooperative education—while permitting far more flexibility in the use of funds to meeting changing needs in states and localities. In view of the natural resistance to the consolidation of programs, this must be regarded as a major accomplishment. We were able to do it because we had the support of the administration, the American Vocational Association, the National Advisory Council, and many State Advisory Councils.

Second, the new legislation thoroughly ventilates the planning process, opening it up to the whole range of educational interests in each state and to the State Advisory Councils. I hope that our action does not result in hyperventilation! Our intention is not to take the planning function away from the state board of vocational education—we quickly rejected the Senate provision which would have done that—but to assure that there is active participation in the process of every group and agency with a legitimate interest in it. At the same time, we tried to make the planning process much more meaningful, so that the state plan would become a genuine blueprint for action rather than a document to comply with the federal statute. We have provided for a long-range, five-year state plan with an annual accounting of progress in meeting the goals set forth in it. The compliance aspect is reduced to a general application kept on file with the Commissioner of Education. The long-range plan must embody a careful assessment of existing and projected manpower needs in each state and a description of how vocational programs are designed to meet those needs. This kind of planning, tied to much more specific requirements for program evaluation, should do much to assure that vocational education is both relevant to the present and aimed at the future.

Much of the new legislation in one way or another is aimed at program accountability. State National Advisory Councils are strengthened and tied more closely with their counterparts under the Comprehensive Employment and Training Act as part of an attempt to tie vocational education and CETA closer together.

We have required the states to match the so-called "set asides" for handicapped, disadvantaged, and postsecondary programs 50-50 with state and local funds. We have also required them to phase in a 50-50 match of federal funds used for state administrative purposes. Obviously, the Congress feels that the States should have a commitment to the handicapped and disadvantaged at least equal to that of the federal government, and that there be some governor on the use of federal funds for administrative purposes which otherwise would be available for programs.

At the federal level we have tried to strengthen leadership in a number of ways. We wrote the statutory authority for the Bureau of Occupational and Adult Education into the Vocational Education Act and required a substantial expansion of personnel used to administer vocational education.

We mandated the establishment of vocational education data and occupational information data systems, and provided for continuing support of a national center for research in vocational education. We created a National Occupational Information Coordinating Committee, composed of the Commissioner of Education and the proper officials from the Departments of HEW and Labor, which will put together a common system of vocational program data and employment data to meet common occupational information needs. We also required that by September 30, 1977, each state receiving funds under CETA establish its own occupational information coordinating committee. We felt rather strongly that occupational programs should in the future be working from a common and an adequate data base. There is nothing more futile than planning for the future on the basis of inadequate, misinterpreted, or wrong information.

Finally, in this legislation we faced the future by providing all sorts of provisions for the elimination of sex bias or sex stereotyping in vocational programs.

The new legislation will not assure that we in fact do meet the needs for vocational education in the future, but I think it is far better designed to do that than was the Smith-Hughes Act or even the 1963 Act. Its success will depend upon how effectively it is implemented, which means how well a great many people perform a great many tasks at all levels of implementation. I think we have done about all we can do in federal legislation, other than to supply more money, to see that all of you have the tools to do a good job.

And there is much that remains to be done. Many of you have heard me on other occasions deplore the fact that the United States has the highest rate of youth unemployment in the industrialized world. It is a chronic problem, bad in the best of times. When we talk about the employment problems of young people aged 16 through 24, some pass it off with the argument that nearly all are in school and searching for part-time or seasonal work. Of course, many are. But in October of 1975 there were 33.9 million in that age bracket, not including those who were institutionalized. Twenty-two million were in the civilian labor force, and over 15 million of these were out-of-school. The unemployment rate for students and out-of-school youth stood virtually even at 15 percent. In October of 1973, in a much healthier economy, the unemployment rate for this age group was close to 10 percent. Needless to say, for disadvantaged minority group young people unemployment rates soar far above these averages, reaching 35 to 40 percent in some groups.

So there is much to be done. Vocational education does not hold all the answers, but it can and must be a major force in addressing some of the most urgent problems we face.

I hope as we go about these tasks that we shall not lose sight of the human and civic dimensions of vocational education. All of education, and particularly that which we have termed "higher" education, has much to learn from those who teach people how to earn a living. Much more than mere skills are learned in vocational education. There is also a system of values involving both a respect for work and a better understanding of the economic system which creates jobs. Vocational students often have a better basic understanding of a free market system than do college students in academic studies, because vocational students work within that system. All too often for my taste, at least, higher education deprecates our economic system to the point where students are alienated from it without ever having understood it. They fail to understand that we are able to do so much for our fellow citizens who need help only because of a highly productive economic system. It is when a system becomes unproductive—and taxing capital out of existence assures that result—that we are unable to support costly social programs. Great Britain is learning that lesson painfully; it apparently was not taught to a whole generation of leaders at the London School of Economics.

Vocational education increases productivity and helps create capital. It also affords students practical insights into the workings of our economic system. More than any other part of our educational system, vocational education interacts with the community. I hope its approach will increasingly appeal to the rest of education, and the new emphasis on career education may well have that effect.

As vocational education looks to the future it can be assured of a continuing high level of interest and support from the Congress. The times are different and the skills people need are in many cases more complex, but the fundamental task of vocational education remains the same as in 1917—education for work. It is imperative that we become more and more effective in carrying out that task. We must reach out to those most difficult to help—the handicapped, the disadvantaged, those of limited English-speaking ability, the young people who have dropped out or been shoved out of our school system—and offer them the priceless opportunity to succeed in life.

That is what vocational education is all about. That is the challenge we face today and must meet in the future.

SECTION I: EDUCATION–MANPOWER POLICY

ON THINKING ABOUT VOCATIONAL EDUCATION POLICY

Henry David
Professor of Public Affairs
Lyndon B. Johnson School of Public Affairs
Austin, Texas

If you have been only modestly attentive to the torrent of writings, speeches, and pronouncements of this bicentennial year, you would, I suspect, be hard pressed to say whether it is primarily a time of celebration or of lamentation. It is, of course, both.

And I have no doubt that during this bicentennial conference the *signs* of progress and achievement of that amorphous enterprise called vocational education–which is not quite half as old in its institutional features as our nation itself–will be celebrated, and that it will be defended against its enemies both real and imagined. I also expect, of course, that the *signs* of deficiency and failure in the vocational education enterprise will be recorded with sorrow, and that there will be expressions of dismay that its actual accomplishments fall so far short of meeting its diverse declared goals. I probably need not remind you that muted sounds of celebration and lamentation pervade *A Report to the Nation on Vocational Education*, prepared for Project Baseline by Dr. Mary L. Ellis. This contains the melancholy note that "Nothing is really certain about the future of 'vocational education' except the instinct for self-preservation."[1]

If this degree of uncertainty concerning the future of vocational education in fact exists and is widely shared, then there is reason for moderate optimism. I say this because such uncertainty may erode the strength of the attachments to historically determined public policies for vocational education on all three levels of government–federal, state, and local. It may inspire, consequently, the invention of fresh strategic approaches to public policy. A recent, and no doubt familiar, example of an attempt to formulate a fresh strategic approach is the "Prospectus for an Education-Work Policy," developed by Willard Wirtz and the National Manpower Institute.

There is, of course, a less sanguine prospect. Uncertainty may also breed a sense of insecurity strong enough to evoke reaffirmations of the sanctity of old policy commitments and thus harden old positions. Such insecurity could also encourage a policy debate among advocates of opposing views who would share only one thing in common–a determination to remain deaf to what others say.

I

My remarks today will not be prescriptive. That is to say, they will not concern the content of either existing or proposed policies for vocational education, and they will not recommend a set of programs. Consequently, I will raise no cry for action. I propose, instead, to discuss with you some notions about policy thinking and policy making. They are, I believe, apposite in what appears, in the judgement of many, to be a time of acute tension and division, if not crisis, in vocational education.

These notions may be viewed in part as cautionary or prophylactic, and I can think of at least two reasons which justify their presentation. One is that most of us find it much easier to decide on actions to be taken than on deciding how and what we should be thinking about actions to be taken. The second reason is that public policy, as an English judge is reported to have observed, "is a very unruly horse, and when you once get astride of it, you will never know where it will carry you." This could well be a comment on the Vocational Education Act of 1963 and the Amendments of 1968. It may also illuminate why someone like Dr. Marvin J. Feldman, a member of the National Advisory Council on Vocational Education, can plaintively say, "if there is a national policy toward vocational education, I would like somebody to tell me what it is."[2]

Perhaps the trouble is that there is a national public policy, or a constellation of public policies, toward vocational education. It consists in all the actions taken through public policy-making procedures—legislative, executive, administrative, and judicial—on all three levels of government, involving the use of public resources, affecting the provision, consumption, promotion, and regulation of a public service referenced in public documents as vocational education. In short, national policy toward vocational education is what a highly decentralized, publicly maintained and operated enterprise identified, with considerable ambiguity, as vocational education in fact does on a day to day basis.

This conception of what a national policy may be in fact appears, however, to be less than satisfactory to those who expect that policies in operation should display features of clarity and economy of goal structure, as well as coherence and internal consistency in the means stipulated for fulfilling stated goals. While it presumably makes sense to say that physics is what physicists do, or that economics is what economists do, it does not quite appear sufficient to settle for the idea that vocational education is what it—a large, complex, diversified enterprise—does. For what seems to be missing, from the viewpoint of policy, is the requirement that something be said about what it *should* be doing.

I admit, with understandable reluctance, that I have not been able to position myself toward a national policy for vocational education in the large, which persuades me of its plausibility and workability. That, of course, is another reason for not being prescriptive.

This was not so a little over two decades ago, and it may be that a bit of personal history, if you will permit me to share it with you, may be illuminating. In the early 1950's, a private body, the National Manpower Council, concerned with formulating national manpower policies, examined the role of the secondary schools, of vocational education, and of the then small number of vocational schools and technical institutes in the development of the nation's resources of skilled manpower.[3] I was associated with that inquiry, as I was with the work of the Council through to the mid-1960's. I mention this personal experience for two reasons. One is to confess how deceptively easy it appeared in the early 1950's to think about and pronounce on vocational education policies on all three levels of government. The second reason is to report that virtually all of the issues that then constituted an agenda of unfinished and future business for vocational education are alive and kicking today.

This statement should not occasion hand-wringing. It would be surprising if the contrary were the case. It would also be surprising not to find that new items have since been added to the agenda of unfinished business. What were the issues, some of which had been long debated, in contention then? They included (1) the central question of how future workers can best be educated and trained; (2) the goals and functions of vocational education, as well as its scope; (3) the relationship of skill acquisition through formal schooling to other forms of vocational and occupational education and

training; (4) the adequacy of federal policies for vocational education, with their emphasis upon trade and industrial programs, and the level of federal spending on vocational education; (5) the relevance and effectiveness of the curricula for and the quality of teaching in vocational education; (6) the retrospective, rather than forward-looking, orientation of much of vocational education; (7) the implications of the "class" character of vocational education for a society professing democratic values; (8) the problem of providing satisfactory vocational counseling and guidance services; and (9) the tension, if not conflict, between the goal of educating the young for life, work, and careers, broadly conceived, and that of educating them for the immediate job market and specific trades and occupations.

I take it that this list of issues has a familiar ring. Many of them have been the subject of annual reports of the National Advisory Council on Vocational Education. All of them are receiving attention in one quarter or another, with all the changes that have occurred in the intervening years on the policy front, in the size and composition of the labor force, and in the economy.

In the 1950's, a springboard for concern were the costs associated with either current or future shortages of manpower. Today, with about eight out of every 100 labor force participants without employment, job scarcities are a focus of concern. As I look back, I am struck by two other differences between the situations at these two points in time that bear upon the relative case or difficulty of formulating policy in the area of vocational education. One lies in the scope and volume of social and economic policies which have accelerated the emergence of a mixed economy in the United States and have established the essential features of a welfare state. These features, in brief, are "government-protected standards of income, nutrition, health, housing, and education, assured to every citizen as a political right, not as a charity."[4]

The second difference complicating policy thinking is the growth in scale of the vocational education enterprise. In the early 1950's, federal expenditures on vocational education were running at a level of $25 million annually; full-time students enrolled in federal-state trade and industrial occupations courses (then offered in 10 percent of some 20,000 public high schools) numbered about 225,000; there were more than a million high school students in industrial arts courses, and about one-half a million adult students were enrolled in part-time evening courses of the "trade extension" type offered under the federal-state programs; and there were less than 600,000 students in junior and community colleges and some 50,000 in technical institutes.

By way of contrast, as you know, total federal expenditures on vocational education in 1974 came to more than $551 million, or 15.5 percent of all federal expenditures on education; total enrollments in vocational education topped 13.5 million in that year, with more than 8.3 million at the secondary level, and almost 1.35 million at the post-secondary level; adults enrolled in vocational education programs came to more than 3.3 million. From what you know, you can complete the rest of the comparison for yourselves. The point to bear in mind is obvious: the sheer growth in size and complexity of the decentralized, multi-level vocational enterprise poses major problems for and difficulties in policy thinking and making. Here, as elsewhere, size alone makes a difference not only in the management of an enterprise but also in the management of policy thought and behavior.

II

I turn now to an obvious, but still essential, point to be made in connection with the invention of fresh strategic approaches to public policies for vocational education. It will not occur unless there is a compelling disposition to undertake four tasks. One is a disinterested examination of the admittedly overloaded goal structure commonly associated with vocational education. That is too familiar to you

to require delineation by me. The second task, which flows from the first, is a reconsideration of the expanded number of functions that vocational education is expected to perform. The third is an appraisal of the larger social and economic policy context within which the federal, state, and local public policies for vocational education are located and with which they are assumed to interact with some positive consequences. The fourth task is inquiry into the state of the available knowledge and information that is functionally useful for policy formulation, implementation, and evaluation. Three of the policy recommendations emerging from Project Baseline, it may be noted, testify to inadequacies of firm knowledge and information pertinent to the planning of vocational education programs and to policy-making decisions.[5]

Engagement on these four fronts holds the promise of disturbing existing paradigms of policy thought. By this phrase—"paradigms of policy thought"—I mean to suggest that policies are shaped by sets of ideas that have emerged historically in the pursuit of particular objectives and intentions which appear to hang together in some logical sense, and have at least the air of being coherent and mutually consistent. On inspection, they may turn out to have embedded in them first, purported explanations of how and why things happen in complex systems and processes and, second, assumptions about how and why of individual and group behavior. The implicit explanatory elements in paradigms of policy thought also carry predictive messages. I mean this in the sense that policy statements in effect assert that, if such and such is done, then such and such will follow in consequence.

In some areas of policy, the paradigms reflect or apply well developed bodies of theoretical and empirical knowledge. They also incorporate accepted intellectual tools for observing and measuring the behavior of the large complex systems on which they focus.[6] This means that their explanatory and predictive dimensions invite and facilitate continuing technical scrutiny, in addition to partisan debate. This is the case, to cite an obvious example, in the domain of macroeconomic policy. It is not the case with policy paradigms in the areas of education or crime prevention and control.

In the domain of vocational education, there are several paradigms for policy, and they reflect it is fair to say, different sets of intentions, interests, and professional and institutional perspectives and stakes. Their theoretical and empirical foundations are, it is generally agreed, soft at best. (These characterizations are meant to be descriptive, and not pejorative. The paradigms for other areas of social policy could be similarly characterized.) Because the paradigms for vocational education policy also mirror strong commitments to competing interests and ideologies, the signals by which they are communicated and recognized tend to be given more attention than their actual content. This, of course, also occurs in other areas of policy.

As one would expect, whether a particular paradigm of policy thought is logically flawed, internally consistent, coherent, and supported by firm knowledge or plausible experience is a matter of far less concern to its proponents than to its opponents. But this familiar adversary dimension of the collective processes of policy-thinking and making creates its own problems. As Geoffrey Vickers observes, because policy making "is a collective activity . . . the first condition of the communication which makes it possible is that the participants should be talking about the same thing, or at least should know when this is not so. Most of the discussion which goes into policy making is directed to reaching agreement on how the situation can most usefully be regarded: in other words, what is the complex of relationships most significantly involved. Policy making is vastly complicated when this cannot be taken for granted . . ."[7]

I have the strong impression that there is anything but shared agreement on how the problems being addressed by policy-makers in the vocational education area should be defined, on the situations in which actions are contemplated should be represented, or, finally, on the repertory of available actions which should be considered. If I am mistaken in this impression, I hope that you will so inform me. However, I do not think I am mistaken, since the perceptions of both the problems to be addressed and the situations inviting action differ as a function of the larger policy perspective within which vocational education policy is located.

In policy behavior, problems and situations, in short, are not "givens." They are constructs—artifacts of the mind and feeling—to which purpose attaches. They are not found; they are created. Consequently, the problems attacked and the situations acted on in the area of vocational education take on a different shape and complexity if the perspective is, for example, economic growth policy, or human resource development policy, or educational policy broadly conceived.

In the case of vocational education, the claims made for the legitimacy of each of these and still other policy perspectives have not cancelled one another. They have been accomodated, with the result that the problems and objectives of vocational educational policy represents a composite, reflecting an exercise in addition. Thus, policy making gives the impression of struggling to find an answer to a global question which might be cast in the following form: "What kinds of investments of public resources should be made in what manner by federal, state, and local governments in students enrolled in elementary, secondary, and post-secondary educational institutions, that will contribute most to their development as individuals, to their roles as workers, to enriching the quality of their personal lives, to meeting future demands for labor, to a productive and healthy economy, and to realizing the values of a free and democratic society?"

It is reasonable to suspect that one source of the observable frustrations which attend vocational education policy-thinking and policy-making lies in the very attempt to wrestle with questions that have global dimensions. Addressing unmanageable questions is only one of three avenues to failure which policy makers in all areas frequently pursue. The other two are familiar to you. One is to become so busily engaged in asking questions as to have no time to search for answers. The other is to be so ready to offer answers as to bypass the requirement of asking questions.

III

Policy behavior—under which I include the formulation of policy, decisions and other actions in policy making, and the implementation of policy through program instruments—is conceived of and represented in a variety of ways. Thus far, I have been suggestive rather than explicit about the conceptions of policy and policy behavior that form the basis for what I have been saying. I turn now to setting forth these conceptions more formally.

To begin with, policy behavior may be conceived as a form of intervention in a given situation designed to effect an intended, either enduring or temporary (and hopefully predictable), change in it. It is purposeful behavior, even though your or my personal views of policy actions may be that their purposes are wholly obscure or unintended. One of two outcomes may be sought by the intervention. One is to bring about a change from a dispreferred current situation (State A) to another preferred future situation (State B). The second outcome sought is to prevent a preferred current

situation from undergoing change and becoming a dispreferred future situation. In either case, those who are engaged in making policy are presumably armed with some knowledge about States A and B and are under compulsion to select a mode of intervention among the several that are available and permissible.[8] In making the choice, some account must also be taken of the conditions which serve to maintain State A and of those needed to maintain State B over some shorter or longer time in the future. Thus, the nature of the action course adopted—the mode of intervention selected—implies knowledge about why a condition is the way it is and about the kind of change required to bring about the preferred future condition.

This point may be illustrated by the Project Baseline recommendation for the establishment of a Cabinet-level Department of Education and Manpower Training. Whether or not it is a sound recommendation is not the question. I cite it because it asserts that the kind of change needed to bring about a preferred situation in the future—namely, that of coordination between manpower training programs and vocational education nationally—is primarily the creation of a new federal executive department. There are experiences with similar organizational solutions to problems of lack of coordination from which some useful lessons could be drawn in the establishment of the Department of Defense, the Department of Health, Education, and Welfare, and the Department of Housing and Urban Development, before this proposal is vigorously advocated.

If policy is thought of as a regulative mechanism, as I have suggested, it must be assumed that some means can be invoked for determining the correspondence between an actual situation and the preferred situation, which becomes the standard against which the first is measured. Central to the dynamics of policy behavior "is the difference between the way things are and the way they 'ought' to be"[9]—between a perceived existing situation and an imagined better one. Standards carrying messages of what "ought" to be are normative. When they are widely shared and accepted, they are likely to be ambiguous at the point of application—as in the case of there "ought" to be opportunities for vocational education and training for every person wishing to seize them. But the strength of shared ambiguous standards is that they facilitate policy choices. By contrast, when what "ought" to be is in contention, is disputed, the problems addressed by proposed policies may appear to be insoluable.

One additional important point, hinted at earlier, calls for emphasis. To the extent that public policies are regulative mechanisms they administer the behavior of larger and smaller social and economic systems, social relationships and institutions, and individual behavior. In so doing, public policies, when they are adopted, register a claim that those who make them understand sufficiently these systems and relationships to attempt to modify their operations for a given purpose.

IV

Policy behavior is a conscious effort to shape a future. It remains future-oriented[10] when it is retrospective in the sources of its ideas, and even when its aim is to achieve a return to some idealized past state or condition. It does not follow from this that policy makers as a class are notorious for cultivating a willingness to engage in disciplined thinking about the future, particularly the longer-term future, even though a growing number have recently displayed that predilection. This is understandable, for the political setting in which public policy making occurs puts a premium upon "short-term success," and even militates against the adoption of "medium term perspectives." As Ralf Darrendorf remarks: "Somebody has to look beyond the rim of the saucer in which most politicians are huddled together to tell them what happens beyond their local and even national constituency . . . their necessarily and at times unnecessarily restricted vision."[11]

It is a commonplace that man lives in three worlds with respect to time—the past, the present, and the future. This is true for individuals, social groups, societies, and, of course, for policy makers. These three worlds of time are interdependent and interactive. "Man," observes Lewis Mumford, "lives in history; he lives through history; and in a certain sense, he lives for history, since no small part of his activities goes toward preparation for an undisclosed future."[12]

Policy makers' views of the "undisclosed future" are inevitably shaped by their constructs of the past and their perceptions of the present. Because these constructs and perceptions differ—sometimes trivially, sometimes radically—the feed-forward signals they send fashion different anticipated and preferred futures. Sensible, pragmatic policy-making, it is generally assumed, takes off from where we are and what exists. "The sternest law of social change," it has been said, "is that it is effective only as it starts from things as they are, depending no more than for spiritual counsel on what they ought to be."[13] But whatever may be said about the laws of social change, it still remains true that to engage in policy making is to assert that man has the power to fix its direction, affect its rate, and control its consequences. And it is also true, as I need not remind you in a presidential election year, that there is no singular or uniform view of "things as they are." This, of course, is one of the marks of a free and democratic society. Moreover, a plurality of readings of "things as they are" may seem to complicate the business of policy making unmercifully, but it is a necessary condition for maintaining that society.

I described the "pasts" and "presents" of policy makers as "feed-forward signals" operating to shape the futures they anticipate or prefer—their images of the future. However tenuous or imperfectly received these signals may be, they operate in turn as feed-backward signals which profoundly influence thinking about and deciding on policy in the here and now. Precisely because the future is uncertain and "undisclosed"—in a strict sense it is unknown—imagined futures are central reference points for present decisions. A preferred or forecasted "No Growth" vision of the future has implications for present policy choices vastly at odds with that which postulates "Growth" as a necessary and preferred condition for human well-being.[14]

It is worth recognizing that most of us, including those who make public policy, take the business of living in the three worlds of time so much for granted that we may not appreciate fully what it means. Time, it has been argued, represents a challenge throughout human history—a challenge to which the responses made may be classified loosely as either positive and optimistic or negative and pessimistic.[15] The responses of Americans today to the challenge of time run in both directions. Challenges impose burdens and strains, and sometimes, of course, produce heroic responses. I detect no heroic responses in the images of the future currently visualized for the United States or the world. As I scan them, I appreciate the thrust of Loren Eisley's insight that "To know time is to fear it," and see merit in his observation that two diametrically opposed forces seem to be at war in man's psyche—one is memory and the other is forgetfulness.[16]

V

It has been said despairingly and misleadingly of politicians that their sense of reality consists of an inability to see beyond the ends of their noses. I have implied that this is probably not the case, for to the extent that they are involved in making policy, they do look beyond the immediate present. Looking to the future is an unavoidable dimension of policy behavior. Consequently, the pertinent questions have to do with the extent of the look ahead—whether it reaches to the medium-term or beyond—and with the depictions of the future that result in what I called the feed backward

signals that affect action in the present. Anticipations of a future in which the critical variables are diminishing supplies of nonrenewable natural resources and the disappearance of relatively cheap sources of energy prompt one set of policy concerns orthagonal to those which emerge from an imagined future in which quick technological fixes to resource constraints or intractable social problems is the critical factor.

The longer view, I should note, shows signs of becoming institutionalized in the political process. There are a dozen states in which public futures organizations and long-range planning efforts have been established, following the lead taken in Hawaii and Washington.[17] Several major cities have been engaged in long-range planning and goal setting activities in which broad citizen participation is central. In the Congress, which can call upon the Office of Technology Assessment for a longer look ahead, there have been attempts to habituate the exercise of a foresight function by committees and to establish federally-funded futures research organizations. It is also worth noting in this context that the Congress established in 1974 the Federal Advisory Committee on National Growth Policy Processes, whose members were appointed last year, which has longer-range planning responsibilities, and that the federal science policy legislation of this year calls for a five-year look ahead at research and development programs. Finally, there are the Humphrey-Javits and Humphrey-Hawkins bills of 1975 and 1976, which would also institutionalize longer-range national planning procedures.

Conjecturing about the future, writing future scenarios, engaging in technology assessments, making projections and forecasts, gaming and simulation exercises, and still other forms of futures research[18] are viewed as modern activities. And so they are. They depend upon the use of concepts, methodologies, and computer technology developed largely during the past three decades.

Yet, one may speculate that a compulsion to penetrate the future arose naturally as early as making decisions meant making choices among alternative actions and reducing uncertainty became a positive value. It is comforting to find that late in the seventeenth century Thomas Hobbes spoke to this theme in observating that "there is nothing that renders Humane Council difficult, but the incertainty of future time, nor that so well directs men in their deliberations, as the fore-sight of the sequels of their actions." He did not believe that even "the dreams and prognostications of madmen . . . that foretell future contingencies . . . can be of any great disadvantage to the commonwealth."[19]

This is not the time or place to consider the state of the arts of futures research or the methodologies of social forecasting.[20] But comments on the potential utility and kinds of "futures" information that abound are appropriate. One may represent policy makers as consumers facing a variety of packaged, competitive futures, proximate and more remote, not armed with the equivalent of a consumer's guide. One class of "futures" information delineate possible and probably future societies and social, economic, and political environments. Some are quasi-utopian, and others speak to radical transformations in the culture. Some are ebulliently optimistic, and others offer dour prognoses. Some attempt to identify major domestic or international issues likely to emerge in the next decade or so, while others pinpoint crises with which the world will have to cope.

This class of images and scenarios of the future, which deal with unfamiliar—because they are unexperienced—social, economic, and political environments, may have utility for those who play a role in policy-making processes if it serves to diminish preoccupation with existing situations and to heighten awareness to the potentialities for change. Encounters with this class of "futures" information may suggest to policy makers that there are emergent situations on which early warning signals increase the chances of readiness to deal with them. It is not difficult to supply evidence in support

of the observation that "There are many situations in which to be systematically late is to be systematically wrong."[2]

Such effects, however salutory, are not as likely to be reflected in policy thinking as that class of information about the future consisting in projections of long-term trends. These represent continuities rather than discontinuities in social and economic change and on the surface appear to reduce uncertainty and minimize surprise. Consequently, they readily become reference points in policy thought, even though they have been capable of providing what turn out to be false signals because they were linear extrapolations resting upon mistaken assumptions. Nevertheless, demographic, labor force, economic growth, educational attainment, and similar projections or forecasts contain the promise of high utility, even to the point, understandably, of eroding the paradigms of policy thought. It is not surprising that the third chapter in *A Report to the Nation on Vocational Education, 1975* is devoted to "the demographic, social and economic trends that promise to alter our society in the future."[22] The danger for policy makers is that they may be seduced by the relatively rich stores of quantitative trend data into believing that policy making requires accommodation to images of the future projected from them, which denies the exercise of options to thwart their fulfillment.

A third class of information of potential utility to policy behavior concerns the set of factors, states, processes, and values likely to enter into or influence the fashioning of public policy in the future. Such "futures" information, both more difficult to evaluate and apply, is pertinent to the direction and emphases of new policy structures. On this score, Charles E. Gilbert has identified, as he puts it, 10 tendencies that "may shape fundamentally the shaping of policy in the nation's third century." They are, to recite only the short-hand tags for complex factors, the following: "environmental constraint, the modern mixed economy, the changing international order, post-industrial society, changing political values and ideologies, modern mass communication, urban society, the growing density and changing balance of federalism, the modern administrative state, and the changing character of public policy."[23] None of these, it will be quickly recognized, anticipates a particular future or delineates future conditions. Each demarcates, rather, an area for inquiry. Among them, the last—"the changing character of public policy"—points to perhaps the most important sphere of inquiry for those concerned with the formation of vocational education policy.

Vocational education was once comprehensible as a dimension of educational policy. It no longer is that. Moreover, vocational education policy is probably less definable in purpose solely in terms of its economic function than it ever has been.[24] Furthermore, the purposes of vocational education, in operation as well as in rhetoric, have come to be located in and defined by a web of social and economic policies. It does not stand apart from policies targeted at employment, economic growth, human resource development, manpower development and utilization, equality of opportunities, the reduction of poverty, and social welfare and income maintenance. Its future, if a prediction may be ventured, will be determined primarily by the changes that will occur in these several different policy areas and by what is still to be learned about the consequences that flow from interactions among them. It is now clear that social and economic policy areas that once could be regarded as relatively independent and separate no longer can be, in spite of the strength of the constituencies and professional interests their existence has generated. As with other policy domains, that of vocational education will be compelled "to become ever more attentive to issues of interdependence and reconciliation." The explicit emphasis on the need for coordination between manpower and vocational education policies is only one manifestation of what has been described as "a growing concern with . . . problems of policy harmonization."[25]

I began by warning you that I would not be making broad policy proposals or recommendations, and that my remarks were intended to be cautionary in cast. In fact, if I had not been slightly worried that it might be misread, I would have added a subtitle to the title of this paper, consisting of a triad of nouns that characterizes much of policy behavior. Now, there should be little risk in saying that the full title of this paper is: "On Thinking About Vocational Education Policy: Or Faith, Hope, and Scarcity."

In a free and democratic society policy making rests upon a *faith* in the power of human intelligence to so order human affairs through public political processes as to better the human condition. That faith has to be strong enough to sustain continuous testing and repeated failures, and also to assure that the failures serve as powerful collective learning experiences. To abandon that faith is also to abandon the values that make possible this nation's continuing search for the meaning of and its experiment with democracy.

Policy making is nurtured by the *hope* that the perception of the situation or condition which prompts action is soundly based, that the actions to be taken correspond to intention and purpose, and that the preferred changes to be effected will in fact make a positive difference in the human condition. There is, of course, the additional hope, so frequently denied, that the resources required to fulfill policy intentions will be at hand.

I come to the third noun of this triad—scarcity—on which I have already touched, and which may stand as the code word for the circumstances in which policy makers find themselves. The constraints on purpose and action imposed by scarcities of resources of money, of personnel, of facilities, and the like, are, of course, important. But I believe that scarcities of will, imagination, and knowledge matter more.

It is worth emphasizing how imperfect and fragmentary is the knowledge that modern societies possess about themselves, in comparison to how much they know about the physical and biological universes. To be more concrete, note how little firm knowledge we have about critical aspects of vocational education that are central to policy making. For example, we know that vocational education students are more likely than others to "come from families of lower socioeconomic status and have less academic, especially verbal, ability" and have more modest occupational goals. What we do not know, according to the recent report by the Committee on Vocational Education Research and Development, is "to what extent students with these characteristics actively choose vocational programs over other programs and to what extent they are assigned by school administrators to vocational programs more often than other programs." It is taken for granted, rather than demonstrated, that potential drop-outs from "general high school programs are . . . 'turned on' by vocational programs and become enthusiastic students and productive workers." Moreover, the case for career education in both theoretical and empirical terms still has to be established by research. It seems to be agreed that it remains to be determined "at what point in a student's education knowledge about jobs and careers should be introduced, when specialized skills should be taught, or how career education can be individualized for students with differing needs and ambitions." Finally, it is said that the measurement of the "advantages of on-the-job training relative to those of classroom training remains a challenge to vocational education R & D."[26] But these are only a handful of items in a long list of questions pertinent to policy and program decisions to which compelling answers are lacking.[27]

Policy making is commonly represented as a problem-solving activity. And so it is, but it is also something different from and more than that. It is, in G.L.S. Shackle's happy term, "by necessity, *an originative art*," as I have been strongly suggesting. And that is why, among other reasons, elements of faith and hope enter into it, and why partial information and imperfect knowledge do not stand as insuperable obstacles.

I can do no better in closing than to quote what Shackle has said about that "originative art" in which choosing among *thoughts* is the critical process:

> Before a man can choose a course of action he must imagine the possible, the available courses. Before he can know which to choose he must imagine, for each such course, as many as he can of its possible outcomes. Decision involves imagination, it is an act of imagination, it is choice amongst the products of imagination. The apparent power, precision and penetration of the modern mathematical and statistical techniques of thought are in themselves a testimony to this elusiveness of the objects of choice . . .
>
> . . . Decision is choice of future action aimed at results which we look for in the further future . . . .
>
> . . . Problem solving is the bread and butter of life, and we shall starve without those who can do it. But besides those who can see ahead of them the one right answer we need those who can see around them a million possibilities. We need the radical, as well as the axial type of mind.[28]

We need, in short, not only the "truth seekers" who are problem solvers but also "truth-makers" to elevate the "originative art" of policy making.

NOTES

[1] Mary L. Ellis, *A Report to the Nation on Vocational Education* (Flagstaff: Northern Arizona University, 1975), p. 5.

[2] Marvin J. Feldman, "The Greening of Vocational Education." Address to Joint Meeting of the National and State Advisory Councils on Vocational Education, May 6, 1976. National Advisory Council on Vocational Education Release, n.d., p. 6.

[3] See, National Manpower Council, *A Policy for Skilled Manpower* (New York: Columbia University Press, 1954) and *Improving the Work Skills of the Nation: Proceedings of a Conference on Skilled Manpower* (New York: Columbia University Press, 1955).

[4] Harold L. Wilensky, *The Welfare State and Equality: Structural and Ideological Roots of Public Expenditures* (Berkeley: University of California Press, 1975), p. 1.

[5] Ellis, *op. cit.*, pp. 86-87, 94-95, 96-97.

[6] Take, by way of illustration, the existence of such an intellectual construct as Gross National Product. There is no equivalent, and quite understandably, in a Gross Educational Product. Note the comment by Willard Wirtz: "Despite all the efforts of the past decade to tie the education and work functions more closely together . . . we have only the flimsiest records of what these efforts have accomplished. Yet such measurements could be made comparatively easily . . ." *The Boundless Resource: A Prospectus for an Education-Work Policy* (Washington, D.C.: The New Republic Book Company, Inc., 1975), p. 6.

[7] Geoffrey Vickers, "The Regulation of Political Systems." Lecture, London School of Economics, November 22, 1966.

[8] It should not be necessary to elaborate on the point that some modes of intervention are impermissible because of Constitutional or value barriers, while others may be unavailable because of resource constraints.

[9] Irving H. Siegel, "Appropriate Government and Private Research Roles in a Mixed Economy," in Richard A. Tybout, ed., *Economics of Research and Development* (Columbus: Ohio State University Press, 1965), p. 269.

[10] This is true also for those public policies that deal with policy-making processes, organizational changes, or set rules which are classified as "constituent" policies by Theodore Lowi. See his, "Four Systems of Policy, Politics, and Choice," Public Administration Review, Vol. 32 (1972).

[11] Ralf Dahrendorf, *The New Liberty: Survival and Justice in a Changing World* (London: Routledge & Kegan Paul, 1975), p. 86.

[12] Lewis Mumford, *The Myth of the Machine: The Pentagon of Power* (New York: Harcourt, Brace, Johanovich, Inc., 1970), p. 414.

[13] Wirtz, *op. cit.*, p. 4.

[14] Some of the implications of "Growth" and "No Growth" scenarios are set forth in Leonard Lecht, *Changes in National Priorities During the 1960's: The Implications for 1980* (Washington, D.C.: The National Planning Association, 1972), and may be traced in the literature of "the limits to growth" controversies.

[15] S.G.F. Brandon, "Time and Destiny of Man," in J.T. Fraser, ed., *The Voices of Time: A Cooperative Survey of Man's Views of Time as Expressed by the Sciences and the Humanities* (New York: George Brazilier, 1966), pp. 140-157.

[16] Loren Eisley, *The Invisible Pyramid* (New York: Charles Scribner's Sons, 1970), pp. 102, 97.

[17] Harold A. Linstone, "Thinking About the Future: Notes of a Worried Optimist." Unpublished paper, October 29, 1975; David Baker, "Anticipatory Democracy," *The Futurist*, October 1976, pp. 262-271.

[18] Elsewhere, I have described the work of futures research as taking "the form of anticipating, forecasting, predicting, or speculating about any dimension of the future . . . defined by problems involving the probabilities and options for social changes, the processes of such changes, and the outcomes of those changes." "Assumptions about Man and Society and Historical Constructs in Future Research," in *Challenges from the Future: Proceedings of the International Future Research Conference*, Kyoto, 1970, 4 vols., (Tokyo: Kodansha, Ltd., 1970), vol. 1, p. 41.

[19] In *Behemoth*, published in 1679, quoted in Andrew Shonfield, "Thinking about the Future," *Encounter*, February 1969, p. 15.

[20] See, for example, Daniel P. Harrison, *Social Forecasting Methodologies: Suggestions for Research*, Social Science Frontiers 7 (New York: Russell Sage Foundation, 1976).

[21] Vickers, *op. cit.* I cite different propositions which might contribute to the kind of positive effects noted. (1) Future conditions requiring policy responses will be shaped by "relatively shrinking resources, growing pressures for redistribution of wealth and income, and the growing likelihood of the use of nuclear weapons to remedy perceived inequities." (Roy Amara, "The Next 25 Years: Crises and Challenges," Paper P-31, June 2, 1975, Institute for the Future, p. 1) (2) "As the world proceeded from the 'oil crisis' of 1973-1974 to the confrontation between the beneficiaries and the victims of the existing international order . . . it has become obvious that we stand at a watershed in world history." (Geoffrey Barraclough, "The Haves and the Have Nots," *New York Review*, May 13, 1976, p. 31.) (3) For the United States, as for the western world in general, "a cultural crisis of major proportions" is on the horizon in "a growing and massive challenge to the legitimacy of the present industrial system." (Willis Harmon, *An Incomplete Guide to the Future* (Stanford: Stanford Alumni Association, 1976), p. 115.) (4) The United States if perhaps the most "underdeveloped country" in the world in relation to its "needs and . . . potential for progress . . ." (David E. Lillienthal, "New Opportunities for Underdeveloped America to Seize," *Smithsonian*, Vol. 7, No. 4, July 1976, pp. 108-115 *passim.*)

[22] Ellis, *op. cit.*, p. 49.

[23] Charles E. Gilbert, "The Shaping of Public Policy," *The Annals of the American Academy of Political and Social Science*, Vol. 426, July 1976, Bicentennial Conference on the Constitution: A Report to the Academy, pp. 116 ff.

[24] Ralf Dahrendorf argues that "by breaking the alleged economic function of education, preparation for employment, . . . education would gain a social function worthy of that description . . . ." *Op. cit.*, p. 75.

[25] Hugh Heclo, "Frontiers of Social Policy in Europe and America," *Policy Sciences, Vol. 6,* No. 4, December 1975, p. 404.

[26] Committee on Vocational Education Research and Development, *Assessing Vocational Education Research and Development* (Washington, D.C.: National Academy of Sciences, 1976), pp. 10-12.

[27] See *ibid.*, Appendix A, "Review of R&D in Major Priority Areas."

[28] G.L.S. Shackle, "Policy, Poetry and Success," *The Economic Journal,* Vol. LXXVI, No. 304, December 1966, pp. 757-758, 767.

THE PLACE OF SKILL ACQUISITION IN NATIONAL MANPOWER POLICY

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The new bill which the President just signed requires the manpower arm of the Federal Government and vocational education in the Federal Government to relate to each other. One member of the National Commission for Manpower Policy will sit on the National Advisory Council on Vocational Education and one from the Vocational Education Council will sit with the NCMP. Congress also stipulated that each body will have to comment on the other's annual report. I believe the legislation also requires some coordination on the research front. I would draw one moral from this new legislation. It is unusual for Congress to move in this way. Apparently it did because it concluded that it made no sense to have vocational education go down one channel and to have the manpower effort go down another channel, and to relate to one another only by accident rather than by plan.

Let us look back for a moment. I have been down in Washington uninterruptedly since 1941 so I have some acquaintance with that changing and confusing scene. I think it is true to say that in the early manpower legislation of the 60's vocational education played a key role in the passage of the original Manpower Development and Training Act. I doubt if the legislation would ever have passed without the active support of the vocational education groups. Nevertheless, in the period since 1962, the two groups—vocational education and manpower—have gone their own way. Even with the special monies that CETA dangles before the governors to work out a closer liaison, the relationships remain at arm's length.

I am on my way from here to San Francisco, where the National Commission for Manpower Policy is holding its third regional meeting. We held one in Atlanta; another in St. Louis, and the third meeting on the West Coast will focus on the delivery of manpower services. In reading the preparatory paper it is clear that there are horrendous numbers of unsolved problems—unsolved in the sense that the American public that pays the cost for all of these programs is entitled to ask that all deliverers of services see to it that the dollars they control should result in the optimum number and quality of services for the population. In all honesty, we have to say that's not yet the case. So I welcome the new legislation.

Very quickly I want to explore two subjects. I want to discuss briefly the nature of skill. I use the words "skill acquisition," not vocational education or manpower services. Then I want to explore a series or policy directions. I ought to stipulate for the record that I wear many hats. The National Commission for Manpower Policy will send its second annual report to the Congress in December. What I have to say represents my own views as a professor at Columbia and as a long-term student of manpower. I believe that many young people leave secondary school systems either at graduation or before, lacking basic competencies, without which they will be unable to take their place in the world of work and in society. Many do not know how to cope with the most elementary tasks such as showing up at work on time, to respect authority, to read directions, to write a report. These lacks have little if anything to do with vocational education. But if these competencies don't exist, then I don't know where to begin to discuss skill acquisition.

We must begin right here to ask, "What's wrong with the school system?" "What's wrong with society, that after 200 years or more of compulsory education in this country, many youngsters are coming onto the labor market unprepared to participate?"

Secondly, many young people who finish high school also find it very difficult when they enter the labor market to link into the world of work. Their difficulties may have absolutely nothing to do with school. The schools may have done their job quite well. I don't know what the unemployment rate is in this city, but I know that it's in the 10 to 12% range in many cities and if that is so what's the point of complaining about the schools? The schools are not in a position, have never been in a position, and can't be in a position to create an adequate level of jobs. All they can do is prepare an adequate number of properly prepared youngsters. It's no use beating up on the schools, the regular schools, vocational schools, or other type of school. In my view, we keep confusing problems of employability and employment. I anticipate that our Commission in its second annual report to the Congress in developing its employment strategy will help to clarify these matters.

Thirdly—there is a constant complaint among many people—educators and non-educators alike—that too much emphasis is being placed upon academic preparation for college. The argument goes that the schools are lopsided, they stress college preparatory work and the important skill areas for the non-college group are minimized. I believe that's a confusion—a gross confusion. While it is true that we have probably reached the maximum in the age group that graduates from college, which is about one out of four, which means that three out of four will not graduate from college, the issue of what should be taught in high school must be looked at with care. I would argue that with the continued growth of service jobs—currently two out of three jobs are in the service sector—there isn't that much difference between what one has to know at the end of high school, the end of community college, or at the end of college, to get a job. This is the 200th anniversary of Adam Smith's *The Wealth of Nations*, and in Smith's view everybody had need to learn how "to read, to write, and to account." I submit that these are still the basic skills required for a person to fit into our economy. I am not arguing that there's room for only one kind of curriculum at the secondary school level—that's rediculous, but I am arguing that communications, arithmetic and analytical skills are still the crucial skills required for work.

The next point that I want to indicate is that there are open questions about the timing when one should move from the acquisition of general competencies to the acquisition of specialized skills. I believe that the whole school system needs to be loosened up. The school system is very convenient, as Adam Smith said of Oxford professors, for the teachers, not for the pupils.

The question does arise, however, when should skill acquisition be stressed? Do you want to do it early in the high school toward the end of the high school, or after the end of high school? That's an open issue. I would argue it all depends on the youngster. There's no one correct answer. For many youngsters, it probably makes sense to delay vocational education until the post-high school years. But the skill training centers in the community should be open to all qualified people including those still in high school, those who have dropped out, students in junior college, and working and unemployed adults. Properly staffed, properly operated skill centers in the United States are too expensive to run to serve only one group. They must be opened up to serve all.

The final point I want to make, based in part on what I know based on my European experience, is that some types of occupational training can be exploitive. If occupational courses teach youngsters how to do very specific things that the employer ought to teach his employees, it is wrong to take school time for such instruction. It adds little if anything to the process of skill acquisition.

A few words now about policy directions. I would say all education must have an occupational dimension implicit and/or explicit. It is inconceivable, at least to me, to think of education not having some relationship to the occupational world since everybody, either at home or in the labor market, will have an occupational role. We are in a mess in this country at least semantically, because of the confusion over career education, manpower training and still other terms. Hence my use of skill acquisition. My emphasis on the linkages between education and work does not commit me of course to look on all of education in occupational terms. But education that doesn't address the linkage issue is irrelevant.

Secondly, I think it is critically important to have more than one choice for adolescents in terms of curriculum that they can follow. The trouble is that the alternatives are frequently not real alternatives. If I understand the role of vocational education at the high school level, you cannot use youngsters who do not know basic mathematics, who cannot read directions, who cannot analyze a problem. The real need therefore is to develop realistic alternatives where the curriculum fits the learning skills of different youngsters.

Thirdly, we have to face the fact that vocational education is considerably more expensive in terms of operating dollars, and more difficult to staff and maintain on an up-to-date basis than ordinary classroom instruction. Hence each community must think through quite hard-headedly what kind of skill centers it needs for youth and for adults, for women reentering the labor force, as well as for older people in the labor force, because one cannot have five or six different occupational systems competing, all of which are properly staffed, properly financed, and using modern equipment. You will have four lousy systems instead of one good system, and I'm pleading for one good system.

The National Commission for Manpower Policy has just published a report called *From School to Work—Improving the Transition.* It's a large report, with 12 contributors, including a chapter analyzing the experience of three of the large companies in retailing, in manufacturing, and in communications. The National Commission will study these and other materials before finalizing its recommendations to the Congress about new linkage structures among the high school, training institutions, and the labor market, which will have to be put together because the high schools alone can't do the skill jobs alone, the employers can't, and the manpower programs can't. Considering the large sums that federal, state and local governments devote to skill training, I think it fair to say that the public is paying a stiff price for what it gets.

One recommendation for restructuring that may fly—at least I will propose it—is a three-year transition program which picks people up in school, leaves them stay in school, introduces them to more and more skill training, and work experience, so that at the end of three years the young person knows enough to be fitted into the world of work. Such a program is clearly not for everybody, but it might help the 1 in 4 youngsters who lack saleable skills.

Let's remember that young people develop at different rates between the ages of 16 and 24, and we therefore need more flexibility to cope with those who drop out of school early but who want to come back later on as well as other patterns of mixing study, training, and work. My own view, influenced by my own children, is that adolescence now ends at 30! So we need a lot of elbow room in the system.

There are many criticisms of vocational education that appear to be beside the point, such as complaining about the overinvestment of resources in agricultural curriculum. I'm always most interested in content. Let me illustrate. I had a young lady come in to see me from Yale the other

day. She had just graduated. I said, "What did you take?" She said, "I specialized in German philosophy—Kant." At that point I gasped. She was looking for a job in New York and Kant did not appear to have much selling power. But as we talked she reported that she had two years of calculus and that she had worked on the daily newspaper. Later on, she said she had done some work in television. When I put together Kantian philosophy, calculus, an ability to write the English language and work experience in television, I told her that she should have little trouble in getting a job in New York. It isn't what one studies, but rather what one knows at the end of one's studies. If agricultural vocational education includes mathematics, bookkeeping, filling out tax returns, the students will acquire useful skills that will help them get a city job.

Sex discrimination apparently remains an issue in vocational education. Progress is too slow. There has long been a rigid division between female and male fields of employment but the job world seems to be responding more quickly than the world of vocational education. I suggest you speed up. Another difficulty with vocational education is that its response rate to market changes is frequently too slow. Take the health field. In the 1960's and early 1970's it boomed. The most successful vocational occupational education that I knew was when unskilled women trained for licensed practical nurses. A woman who had earned $3,000 a year with one year's training was able to move into a $7,000 earning level. That's effective training. But if the jobs aren't there, then one has to think again. So the question of speedy adjustment is very important.

One way to assure a quicker response rate is to relate a training system as closely as possible to the employer. That means all employers, public, private, and nonprofit. One of the strong points in the Job Corps are the pre-apprenticeship training courses run by construction unions which assure these disadvantaged youngsters that if they stay in the course they will be enrolled in a regular apprenticeship which will lead them to journeyman status. It's not a big program—only 3,000, but it's very good.

It is important for all in vocational education to back off and recognize that skill acquisition in the United States has multiple routes beyond the control of any one group. We have formal school training but it's by no means the whole of the story: there's apprenticeship; there's OJT; there's the simple pickup of skills through job mobility; there are the Armed Services; there are governmental manpower programs, and on and on. Unless one sees the picture whole, and understands where vocational education fits into the large frame one will make claims that will not be validated. This society is too open, too loose, too unstructured. Our problems are problems of interfaces and linkages.

The final point I want to make is that unless you know more about what happens to those who go through training, through your program and other programs, all of us will continue to fly blind. A serious defect of every governmental program in health, in garbage collection, in police, in education, is, we know so little about what we get for our dollars. I am not a simple-minded believer in cost benefit studies—most of them aren't worth the paper they're written on. But I am very interested to find out what happens to the graduates in any particular program. A society that invests $1,000 or $3,000 per student per year has a right to know about the outcome. Unless we get stronger evaluations, we will continue to have arguments that will be decided by political muscle, not by facts.

Let me conclude by saying, first, that every young person coming through the schools as well as every adult, must have certain minimum competencies built into him. And if that doesn't happen, everything else is irrelevant. Secondly, once he has these basic competencies, he ought to have the opportunity to acquire specialized skills. I wouldn't force anybody to acquire skills; there are—and

will continue to be—many unskilled jobs in our society. But everyone is entitled to have the opportunity to acquire skills. Next, there is not much sense in worrying about skill acquisition unless there are jobs for people who acquire the skills. Vocational education can be doing the best job in the world, but if there are no jobs at the end of the line that is not your responsibility. Make that clear.

One of the great errors of American educators is to overpromise the public on what they can deliver. They have said, just leave the kids to us and give us the money to educate them. They were wrong. After 16 or 17 they can't hold many young people. I don't care how much money the society provides, the school is a dysfunctional institution for many older adolescents.

Finally, employability and employment are congruent, not identities. Employability skills are critical for running a technical economy, but employability without employment is double frustration. So I tried to indicate to you how I think and what I think. Let me say that you will have to wait until the end of the year to find out what the National Commission for Manpower Policy thinks.

EDUCATION FOR WHAT?

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The sobering context of whatever may be said at this conference will be the realization that vocational education, indeed education in general, is being relied on today by increasing numbers of young Americans to lead to jobs that aren't going to be there when they arrive.

Last Friday's Bureau of Labor Statistics report brought the monthly reminder that the unemployment rate among 16-to-19 year olds is almost 20 percent . . . three times the adult rate, the highest it has been in the 35 years these records have been kept, and far above that in any other comparable country in the world. The figure jumped about two points in August. For those in the double jeopardy of being both young and black the reported rate is now running between 35 and 40 percent.

In the next age group, 20-to-24, more and more young men and women are finishing their training for specialized vocations or professions, finding no vacancies in them, and having to settle for something they consider much less. Fewer than half of those who got their credentials as teachers in New York last Spring are teaching this Fall; the projections for next year show one vacancy for every twenty graduates. The statistics of widening spread between the numbers of college graduates and the number of jobs traditionally requiring that much education have become commonplace.

For about fifteen years now, as this problem has been developing, educators and students alike have accepted the theory that it results from something being wrong with education. So there was the undertaking first, in the early and middle 1960's, to see to it that more young people got more education. "To get a good job," teen-agers were told on bill-boards, bus placards, and television spots, "get a good education." The high-school "drop-out" rate dropped sharply. Then a whole new tier of two-year community and junior colleges was added to the educational structure, and again there was a dramatic response—with over two million young men and women now being enrolled in these colleges.

When the youth unemployment problem persisted, the emphasis was shifted in the late 1960's and early 70's away from the amount of education and more to its vocational and career orientation. There were the Vocational Education Amendments of 1968, under which the National and State Advisory Councils assembled here were established. U.S. Commissioner of Education Sidney Marland initiated a career education initiative which, despite mixed reactions in Voc-Ed ranks, has unquestionably had a broad and strong catalytic effect. Work-study and cooperative education programs have been given new emphasis. There has been a marked shift at both the secondary and post-secondary levels from the liberal arts to the more occupationally or technically oriented courses.

Yet by every discernible sign the ironic paradox of more and better education but worsening youth unemployment and underemployment has only sharpened—with the consequence that today young Americans, having stayed longer and longer in school, taking more and more vocationally and technically oriented courses, and then finding no use for it, are asking with increasing skepticism bordering on incredulity: Education for What?

I don't share in any way the cynicism this question reflects, even though I can't answer it fully. But it's the right question. For the reason responsibility for increasing youth unemployment has

been attributed to some inadequacy in education is that we have traditionally assumed that when the national economy is functioning normally it will need and want all the adequately prepared young people it can get, and the more education they have the better. That just isn't true today. And as the basis for that traditional assumption diminishes, the more we are going to have to look at the "For What" of education, vocational and general alike.

This means, ultimately, facing up to the sternest question: whether the American economy as it is currently conceived of is ever again going to want or need as many people as want to work for as many hours in the week and as many years of their lives as they do today. Last week's settlement by Ford and the Auto Workers brings that question into new and sharper focus.

There are other elements in the current and developing economic situation which bear particularly on youth employment. Although the economy is reportedly and apparently regaining its vigor, the over-all unemployment holds at seven to eight percent--which means experienced competitors for jobs that went to new workers when it was at three to four percent. Employers are now under statutory mandate to maintain affirmative action hiring programs with respect to women and minority group members, but not youth. Machines, which don't ask for wage increases or present disciplinary or absenteeism problems, now have the equivalent of at least a high school education. At least in the manufacturing industries, employers' attitudes toward the hiring of youth are fundamentally different from what they were ten or fifteen years ago.

Yet if the ultimate issues here are indeed as broad as the whole of American economic policy and the national prospect--of which a little more at the end of these remarks--there remain significant opportunities for the substantial improvement of this youth situation through measures within less olympian reach and more within this Conference's assignment.

We have talked about "building better bridges between the two worlds of education and work" as though we considered these reciprocal processes. Yet in fact we have treated only education as a variable, as alone subject to adjustment when the two processes appear to have gotten out of kilter. Work has been taken virtually as a given. So far, the bridge building has all been at one end.

There is another approach, not alternative but complementary. It involves giving as much attention to the work as to the education elements of education-work policy. Call it, better, the development of a Fuller (not Full; we've done too much of that kind of over-selling) Youth Opportunity Policy.

Without trying to outline such a policy in any way fully, I'd like to suggest three or four elements in an approach to its formulation which will perhaps suggest other possibilities.

Elementary as it may appear, the first step toward working out a fuller youth opportunity policy is probably to correct some notions about the characteristics of the youth work situation, including both employment and unemployment, that no longer conform with the realities. An important part of the trouble here lies in the present measurement and reporting of youth's work circumstances as part of the over-all measurement of what is predominantly adult employment and unemployment--on the theory, now archaic, that they are the same.

In the traditional thinking, youth work is simply the beginning stage of adult work. It has also been part of this thinking that young people's going to work is something that happens when they leave school, and that it involves their stepping out of the education promotion system at that point

and onto an employment ladder—into entry level career jobs with the prospect of promotion. Part of our purpose and planning has been to avoid their getting side-tracked into what have come to be called "dead-end" jobs.

Although nothing in the statistics reveals or reflects it, there have been comparatively recent changes in this picture which materially affect the development of a fuller youth opportunity policy. One of these is that almost suddenly, and for a variety of reasons, most large employers, particularly in the manufacturing industries, have virtually stopped hiring anybody under the age of about 20 or 21, at least into "career type" or "promotable" jobs. At the same time, there has been a vast expansion of youth employment in certain service industries (the fast food service chains being a notable example), with some suggestion—in the "Help Wanted. Part Time or Full Time" signs in the windows of small service establishments across the country (except, significantly, in the inner cities)—that at least in a good many areas there may be more of these jobs than there are takers.

It also develops, looking closely at some of the background data, that youth *employment* has been increasing more rapidly during the past fifteen years than has their unemployment; not just in absolute numbers but in percentage terms, and also by comparison with the rate of increase in adult employment. A significant part of the increase in the 16-to-19 year age group unemployment results from the fact that more of them are looking for jobs.

Instead of youth work being something that comes characteristically after education is completed, more and more of it is being done by boys and girls or young adults still getting their education. About half of those among that 20 percent listed as unemployed are looking only for part-time jobs, assumedly because they are still in school. It also appears from piecing together various reports that between 75 and 85 percent of all students have had some kind of employment experience by the time they leave high school.

It doesn't detract in any way from its seriousness to admit that we don't actually know what the real dimensions of the youth unemployment problem are, at least in those terms that would permit detailed suggestion with respect to what to do about it. It is obviously of two distinct types: the unemployment of untrained or incompetent young people, and serious underemployment of those who have been fully trained for vocations and professions in which there are too few openings. The statistics lump them all in together; yet the problems, and whatever answers there may be to them, are entirely different.

There are probably potential answers to a considerable part, though by no means all, of the "untrained" youth unemployment problem—in some more thinking about the development and use of these service-sector opportunities. This doesn't mean an exemption from the minimum wage laws, or reduced minimum wage levels. It does mean reopening the question we have closed off in our thinking as parents and educators with that phrase about "dead end" jobs—which I hereby nominate for oblivion. It isn't at all clear that this kind of experience is valueless; there is probably better reason on the other side. If it is true, as it may be, that most young people wanting work enough and sufficiently equipped to do it reasonably well can find it—except, again, in the inner cities where a lot of this problem is concentrated—this becomes in substantial measure a question of motivation and attitudes and of concentrating on those areas and those individuals with special problems.

One other suggestion here. With both youth work and youth unemployment having become distinctly different from the adult experience, the measuring of the 16-to-19 year age group situation should probably be taken out of the measuring of over-all employment and unemployment, and new

and separate measurements established that provide the information that is critical: about what work, of what types is available to upper teen-agers in the communities in which they live; about the terms on which they are seeking it; about whether, when they don't find it, this is because of the state of the economy or the state of mind and the qualification of the applicant. Changing the bookkeeping is no answer in itself, but whatever a large and complex society does or doesn't do about a problem or prospect is strongly affected by whatever it measures. One of the important first steps in developing a fuller youth opportunity policy will be to find out more than we know now about precisely what the problem is.

A second point involves the institutional machinery for going about this job. One reason so little has been done at the work end of the bridges is simply that nobody is in charge there. Education is fully institutionalized. Work, including youth's work, comes under free enterprise.

It's hard to justify, from a community standpoint, the abruptness with which young people, regardless of their demonstrated responsibility or lack of it, are removed from a situation in which they are virtually wards of the community to one in which they are totally on their own. That worked out fairly well in most cases when the move was directly from school, at virtually whatever stage, to what were usually entry-level jobs on career ladders for most boys and to early marriage for most girls; and when the family normally played a significant role in the making of this transition. It isn't working well today. The establishment of an effective youth opportunity program probably depends critically on developing some form of institutionalization of at least minimal responsibility for picking up, when this is necessary, where the schools' responsibility ends.

It is particularly appropriate at this Conference to consider in this connection the possibly broader implications of the increasing reliance at various levels of the educational system on the advisory council device. Councils similar to those represented here have been set up in connection with the various Career Education projects, as integral elements in most Community College structures, and now as part of the Comprehensive Employment and Training Act program. Does the widening use of the advisory council mechanism, providing representation of various different constituencies in the community, reflect what is only partial recognition of a principle of governance that may in fact warrant substantially broader application? More and more, the same people show up as members of these bodies, each advising a different agency but with the areas of advice overlapping increasingly. There is at least reason to wonder whether the real implications of this are that the education-to-work transition has emerged as a responsibility requiring by its nature the participation of various constituencies in the community, and that this participation should take broader forms than simply offering advice.

A good deal of importance may attach to a current undertaking, initiated by the Department of Labor in conjunction with the Departments of Health, Education and Welfare, and of Commerce, to explore the feasibility of local initiatives taking the form of the establishment of what are being called Community Work-Education Councils. These are in no sense Federal agencies or in any way subject to Federal control. The initiative for establishing them comes in some communities from within the school system (perhaps most frequently from a community college), sometimes from an employer group (occasionally with labor union participation), sometimes from other community groups. Their common characteristic is that they involve full participation by all three of these constituencies.

These Community Work-Education Councils have no authority and no program funds. What they do have is the capacity to mobilize the support of the entire community for all aspects of a comprehensive youth-to-adulthood transition program: by supplementing the totally inadequate (in most communities) career guidance and counseling programs in the high schools; by brokering work-study and

and cooperative education programs; by developing "considered break" programs which are becoming so important as more and more young people stay in school longer and longer; by developing comprehensive Community Youth Opportunity Inventories; by working out problems of youth employment which appear to have developed as a consequence of various Federal and State legislative enactments.

Working with the Department of Labor and the other Government agencies in carrying out this Community Work-Education Council project, we have found at the National Manpower Institute over 300 communities in the country interested in doing something of this sort. A Consortium of fifteen of them is being set up, with arrangements for a full exchange of experience among them and for an evaluation of how they work out. A similar project is now being undertaken by the American Association of Community and Junior Colleges.

There is a bill before the Congress providing for broader experimentation with the related principle embodied in the remarkably successful Labor-Management Council established several years ago in Jamestown, New York by then Mayor, now U.S. Representative, Stanley Lundine.

The case is strengthening rapidly for the development at the local community level, essentially in the private sector, of some better process for exercising community responsibility in connection with the "work" elements of an education-work policy complementing the responsibility it exercises, through the schools and colleges, with respect to the education elements. The schools need and apparently want today, as far as these education-work programs are concerned, not just advice but some broader sharing of responsibility. Employers are not going to be able to provide the kind of entry-level career type jobs the National Alliance of Businessmen JOBS program, taking that program just as an example, called for. Community members appear ready to re-assume in some form as citizens the responsibility they used to exercise as parents. The community as a whole, increasingly concerned about rising juvenile delinquency and crime demonstrably related to youth joblessness, knows that school teachers and policemen can't handle this problem alone. Full youth opportunity can develop only as a full community undertaking.

A second element in an approach to this problem is the devising of some new form of collaborative private sector participation at the local level in doing what needs to be done at the work end of the bridges.

Some form of publicly subsidized youth employment *and service* program is emerging so rapidly now as another element in a fuller youth opportunity policy that the important questions are about how such a program can be made maximally effective.

The House of Representatives passed by overwhelming bi-partisan vote last May a bill (H.R. 10138) to create a Young Adult Conservation Corps. An almost identical bill was then reported out favorably by the Senate Interior and Insular Affairs Committee of the Senate, but did not get to the floor.

H.R. 10138 proposed the setting up of a program to provide for the hiring of 500,000 (starting with 100,000 the first year) 19-to-24 year-old young men and women on full time, year round conservation jobs on public lands and waters—to be paid for at the federal minimum wage and to last up to a year. Modeled on the present Youth Conservation Corps (a summer program for 15-to-18 year olds), the proposed YACC job opportunities would be limited to unemployed persons and would be concentrated particularly (but not exclusively) on high unemployment areas.

At its annual meeting in June, the U.S. Conference of Mayors passed a resolution urging the enactment of a program to provide work for young people "on urban restoration projects, community

service programs, and rural conservation projects." National Youth Service programs have been proposed recently at an American Assembly meeting and by the Eleanor Roosevelt Institute. Both Presidential candidates have advocated, though with different degrees of emphasis, some form of youth conservation corps or service program. There appears a strong likelihood that something will be done along these lines in the Congress next year.*

Supporting this pattern of proposals fully, I suggest three points regarding it:

I think it would be a mistake to limit programs such as these to what we have thought of traditionally as "physical labor" projects, or to working on the face of the planet. Jobs of that kind are exactly what some young people want and what some more of them need. But there is so much to be done in every community in this country in various forms of *service,* and opportunities for this ought to be included too. The service ethic is as important as the work ethic.

Second, it seems to me important to set up such programs as these on a broader basis—which they have—than simply meeting an unemployment problem. I don't think these opportunities should be limited to "the disadvantaged." The young people coming within that description (whatever it means) will inevitably be in fact the principal beneficiaries of such a program, if only because they have fewer other options. But the values of this kind of experience, the desire for it, and the use they will make of it, are as large in the case of young people who are doing well academically and materially as with those who aren't. This isn't just another relief program. It has affirmative values and purposes. It is important to avoid the "classism" which has infected similar programs in the past. There is also the consideration that in terms of political pragmatics people in this country have an increasing preference, and for sound reason, for programs that meet a broad need and that will benefit particularly those who are at some disadvantage only as an incident of their wider application.

I would also urge strongly that the administration of any such program be not only centered at the local community level but be put in the hands of some body such as the suggested Community Work-Education Councils. The real point of "decentralization" is not to transfer authority and the expenditure of public money from one level of government officialdom to another, but rather to put responsibility at a level at which the membership of the community can themselves *participate* in its discharge instead of having to rely so exclusively on the handling of their affairs through increasingly remote (as the society gets larger) *representation.*

This third suggestion creates obvious practical political difficulties. But there *is* an emergent "political pluralism" in this country today; people are going to be increasingly insistent on getting back into the handling of public affairs they have come to feel more and more left out of. There would be strong and widespread support for a statute that put a responsible local community organization—made up of school, employer and union, and broader community representatives—in a position to establish each year a significant number of Community Internships, or Community Apprenticeships, for young people in that community. If it is done this way, it is very likely that whatever Federal funds are made available would be matched and supplemented by local contributions, in money and in kind, that would triple or quadruple the number of youth service opportunities that would become available.

*Cf. Senate Bill 3869, providing for a Youth Community Employment Act, introduced September 29, 1976.

This would diminish the Federal costs of such a program, helping to meet the only argument ever made against proposals of this kind. Figured usually at something in the neighborhood of $5,000.00 per year per individual, these costs obviously mount up rapidly. This arithmetic always leaves out, though, the costs of *not* meeting this need. The largest likelihood is that the expense of such a program, properly administered, covering a million young people would be more than saved even in straight out-of-pocket terms by reductions in unemployment costs, welfare payments of one kind or another, and the prices of the delinquency which are part of the alternative.

A publicly supported youth employment and service program, administered by local communities in a manner permitting and encouraging broad citizen involvement, is a vital third dimension of a youth opportunity policy consistent with both America's needs and her ideals.

A final point involves the bearing of all or any of this on vocational education.

It risks misunderstanding to suggest that it will be a serious mistake to rely too much on Voc Ed, at least in its traditional forms and institutionalized pattern, in finding the answer to this question of "Education for What?" Yet to think that answer on through fully is to recognize vocational education as having a substantially broader significance than has so far been generally accorded it.

If increasing joblessness among youth were the only changing characteristics of work in America it would be plausibly argued that what is required is simply to see to it that all young people are equipped with salable skills when they leave school, permitting them to move directly and immediately into one kind of job or another and a position of self-sufficiency. This will mean, among other things, providing more training options for those with neither reason nor desire to go all the way on through college or the traditional preparatory college course. This makes sense.

There are, however, other changes taking place in the nature and role of work that also bear on the function of vocational education. One is that most people now move during their lives through several entirely separate work careers, requiring distinctly different and often unrelated skills. The other change is that work as it is traditionally thought of occupies a steadily diminishing part of most people's adult lifes, something like a third as much today, calculated roughly, as it did seventy-five years ago.

It will be the worst mistake if Voc Ed is developed and strengthened solely to meet the worsening problem of youth unemployment—which is, to be sure, what young people have in mind when they ask: Education for What?—without regard to these other changes which are no less significant simply because their impact comes later in an individual's life.

There appears reason for real concern about the trend today toward the earlier routing of young people, at the high school and lower college levels, along separate tracks. It isn't enough justification for this that the traditional liberal arts college preparatory route doesn't make sense for everybody (which is clearly right) and that those with different talents and prospects are entitled to equal development of their capacities (which is also right). That's the "separate but equal" mistake all over again. The alternative isn't to fall back on the tired argument for traditional liberal arts, as against or to the exclusion of vocational education. The point is rather that the right answer would seem to be in a significantly different prescription of education and training—with a substantial mix of *both* types of preparation, although obviously in varying portions—for *all* young people. As the work pattern continues to change, and as the place of traditional work in life diminishes, the inadequacy of an exclusively liberal arts education is going to become as apparent as the inadequacy of training in some narrow vocational competence.

An overly personal reference will perhaps suggest more clearly a point I admit to feeling more fully than I understand it. I had to get to be almost sixty before I found out, having used my head all my life (in a manner of speaking), how much satisfaction there is—in some ways even more satisfaction—in doing things with my hands. You can see what you've done, and know whether it is good or bad or indifferent. I wish greatly today that I knew how to do a lot of things—from fixing a car and doing some elementary plumbing to building things and making things grow—that a liberal arts education and legal training never came close to.

This doesn't really say it. The purpose of formal education and training can't be in any significant measure to prepare people to broaden out their interests when they get older and have their career futures behind them. It at most only suggests whatever there is in the point that all of education for everybody ought to include a much broader mix of different kinds of preparation for different kinds of activities.

Even if it were true, which seems increasingly dubious, that a particular boy or girl would get a better job earlier by concentrating on developing a particular skill, the question would still be what that individual is going to be doing later, both at work and during the rest of the time, and with what satisfaction. And if it were true that another young person would find more lucrative use earlier for his or her talents by developing them through another four years of post-secondary liberal arts, the question would still be how much that individual is going to miss later of both alternative career opportunities and the satisfactioins of a broader self-sufficiency and creative capacity.

If we are indeed moving toward more vocational education as part of a *choice* that young people are to make between it and something else, this is probably a mistake, largely induced by concentrating on the youth unemployment problem to the exclusion of proper consideration of other changes that are taking place. What we ought to be doing is developing vocational education as a much larger part of a broader educational opportunity for everybody.

This suggestion will be totally unattractive to any who may think of vocational education primarily in terms of its separate institutionalization. It will have different implications, though, for those who feel that more of education should be directed, for virtually everybody, to pursuits and interests and capacities traditional liberal education left out. It would give the *function* of vocational education, apart from its separate institutionalization, a greatly enlarged role—to be played along with, not apart from or as an alternative to, education in what we have called liberal arts.

Education for What? One part of that answer is Education for Whatever.*

The "Whatever" will have a hollow, mocking ring to it, though, in the ears of young people for whom it means today either no work at all or a job that puts no value on their ten to twenty years of education. It is essential in summing up these remarks to put what has been said in the perspective of what has been left out.

It is important that previous efforts to develop the education elements of an education-work policy be extended now to embrace the work elements as well. This will properly include fuller recognition of the emergence of what is virtually distinct youth type work, and the development of new measurements of youth employment and unemployment as a basis for constructive affirmative action.

*I am particularly indebted for this general point about vocational education to my colleague John N. Gentry.

A fuller youth opportunity policy probably depends for its effectiveness on the establishment of new collaborative processes at the community level, based essentially in the private sector.

It appears increasingly likely that a publicly supported supplementary work and service alternative will be added to young people's options; and it is important that such a program be administered by local community organizations and that these opportunities be made available to all young people on a broader basis than financial needs.

To believe deeply in the values of vocational education is to feel strongly that its function goes beyond providing some young people with immediately salable skills, to include equipping all of them with a vocational versatility essential to both earning a lifetime's living and finding leisure's as well as work's fuller satisfactions.

Back however, in closing, to those broader considerations and concerns which were noted at the beginning. We will not advisedly or honestly ignore, in looking for answers to youth unemployment—and to youth's question about Education for What—the broader uncertainties that grow today about the place of people in the economy generally. This isn't just a youth problem. There isn't much difference between the frustrations on the one hand of young people unable to find skilled jobs they are fully trained for, and, on the other, the feelings of futility that come to older men and women forced by compulsory retirement policies out of jobs they are fully qualified by competence and experience to continue to perform. We will have to face more squarely than we have in this country the harsh truth that even the present unsatisfactory employment levels are being maintained partly by postponing the time when young people enter the work force and by advancing the time older people leave it. The still broader truth is that we are using only part of the developed human resource and encountering increasing trouble as we enlarge that part of it we are developing.

I don't think the answers to this lie in the nonsense about a no-growth policy. Growth seems to me essential to life, at least meaningful life, for a society and an economy as much as for an individual. I *believe* the answers lie in the development of a whole new economics and politics of growth based on the fuller development and use of the limitless human resource rather than so largely on the exploitation of natural resources which are in obviously limited supply. I *know* there is plenty to be done in this country, and substantial need for more of the very services that college graduates and older people alike are ready and willing and competent to provide but for which they are denied that opportunity. I *think* the basic questions are political more than they are economic, and have to do with the values we place on different kinds of activity and accomplishment.

But that is all obviously another speech, and this one is already too long. I see, in more immediate terms, a great deal to be done toward increasing the effectiveness of education, general and vocational alike, by establishing a broader architecture of youth opportunity. The members of the Advisory Councils assembled here are particularly qualified to serve as architects of this part of the American future—which I continue to think of as a supremely promising prosepect.

SECTION II: PLANNING FOR VOCATIONAL EDUCATION IN THE FUTURE

VOCATIONAL EDUCATIONAL FUTURES:

SOME SOCIOLOGICAL DIMENSIONS AND CONSIDERATIONS

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The overall goal and purposes of this paper will be the identification of sociological variables which should be given consideration in the future planning, design, and implementation of vocational educational programs and policies. Primary emphasis will be focused upon seeking to maximize the fit between two critical elements of the educational-work relationship. Namely the fit between those who are being trained, educated and socialized for work and the societal settings of both work opportunities and work conditions. There is, regardless of purpose or pedagogy, general consensus as to the common denominator of all education. There is agreement that no matter the educational locale or teaching style all learning is directed at providing the individual skills, abilities, knowledge, and behaviors which will hopefully enhance goal attainment. In the case of career and vocational education the goal is to somehow maximize work and career related success. We can of course argue about what is meant by "success," "work," or even by "career." We can also point out that where there is a lack of goal consensus between those who teach and those who learn, serious problems will emerge. While these issues are of importance they are not central to the theme of this discussion. What we can do here is seek to provide policy makers and program designers with our best thinking as to the kinds of factors and conditons which should be taken into consideration in the pursuit of sound work and educational procedures.

In the case of vocational education the sociologist can be of some value by identifying and describing the nature and dimensions of the current and potential work force population. The sociologist can call attention to certain aspects of current and anticipated employment conditions thereby hopefully serving both those who are preparing for work and those responsible for enhancing the work preparation process. Obviously the perceptions and experiences of a single sociologist are not sufficient to deal with the many dimensions of the current and future work force. Nor should it be expected that any one discipline holds answers to questions which call for an understanding of the interplay between psychological, social, economic, political, and technological variables. Hence my purpose here is to deal with a limited, yet I believe, critical portion of the work preparation problem. First, an examination of the sociological data pertaining to work-career related attitudes, values, aspirations, and expectations. Secondly, an examination of the sociological data dealing with shifts in labor force-career opportunities. In the latter case my intent is not to present a highly elaborate or quantitatively sophisticated analysis of projected losses and gains in specific work and career categories. I must admit that such prophecy is beyond my capability and further I have yet to see where such singular predictions have been validated by historical occurrence. The combination of unanticipated events; faulty data; inadequate methodology; an inability to conceptualize problems in terms of futures; and a reluctance to show their hand on the part of those who actually determine employment opportunities all contribute to an outcome which makes such predicting a chancy and dangerous game, Still, if one is to talk about the future it is essential to take some stand with regard to that future. I intend to ease my anxieties and increase my accuracy by focusing in upon two aspects of the future employment market. First, anticipated shifts and changes in broad occupational groupings—i.e., continued declines in agricultures and manufacturing with growth and expansion

in the areas of science, technological intensive fields, and in service related occupations. Secondly, to deal with what I feel will be the prevalent types of work settings—their organization and their social climates.

The final portion of this paper will be a discussion of the fit between people and work settings and the implications for those concerned with matters of vocational education.

Prior to the start of my discussion I find it necessary to share with you certain personal biases and introduce several caveats. In the arena of caveats and as would no doubt be expected from an academic sociologist I should point out that the available data and literature leave much to be desired. In reviewing the literature one gets the distinct impression that individual ideology and not empirical data are the primary basis for conclusions reached. In the potpurri of debate there is something for those who support and those who attack vocational education. On the one hand we have the commentary of Professors Grubb and Lazerson and on the other the eloquent response of Dr. Marvin J. Feldman.[1] With regard to work force futures and growth we have the steady state arguments of Professor Meadows of Dartmouth and the go-go-grow view of Dr. Herman Kahn of the Hudson Institute. No wonder that our citizens feel a sense of disenchantment with our intellectual leaders and that policy makers are less than impressed with the value of our research.

A second caveat, the most certain thing we can say about the future is that it lies before us. Futuristic inquiry while being of critical importance and much in vogue is hardly a science. Most scientists, most policy makers, most institutions, and most people live, work, and think in relatively limited time frames. Even though the consequences of our inability to plan in long range terms are abundant, witness urban decay, the continued conflict over school bussing, energy crisis, world food shortages, population dislocation, economic recession, and growing unemployment, we continue to behave as if there were no tomorrow. The National Advisory Council on Vocational Education is to be congratulated for designing a conference which forces participants to reflect upon the past and the present while placing primary emphasis upon the future. The task while challenging and hopefully illuminating is a risky business, but I believe the most productive course to follow.

In the matter of personal and professional bias: First, I have the strong feeling that the philosophical and programmatic emphasis of both career and vocational education has been far too one sided. Much too much of the burden of proof has been placed upon the client, student, or trainee and too little attention has been given to those responsible for the design of work settings; those responsible for increasing work opportunities; those responsible for the absorption and integration of the work force. Obviously in the matter of education and work it takes two to tango. People who are prepared to handle work responsibilities and social institutions dedicated to maximizing work and career fulfullment. My own assessment of the education-work picture leads me to conclude that the proponents of both vocational and career education have been somewhat naive and on occasion unjust in their orientation. Naive in behaving as if proper skill training and an aggresive work attitude will lead to productive and satisfying employment. Unfair in suggesting that the major problem lies with Americans who are either unwilling or unable to take on or deal with the business of work and career. Without unduly belaboring the point I take the position that if we are to enhance payoffs between education and employment futures it is essential to devote more time and effort to establishing a social system which is capable of absorbing workers and providing workers with conditions which will take advantage of the skills and motivation which these people bring into the work market.

I should also point out that many of us in higher education are not without guilt. In many ways we, too, have communicated the message that somehow educational credentials alone will effect a

form of magic which will assure access to the more prestigious and more exciting occupational opportunities. The reality is that we can no longer make such claims and that the gap between formal educational credentials and income is decreasing.

My second bias is directed at those who seek to separate issues of work and career preparation from that which we have come to call general or liberal arts education. Work and careers should not and cannot be separated from other aspects of an individuals life. On the contrary the evidence is that more and more people see work not as a separate activity but rather an integral part of the total life style. Work and career should not be viewed as an isolated portion of human development. The attitudes, values, aspirations, and expectations of individuals are not neatly categorized into various life style categories. Work skills and intellectual talents are not turned on and off depending on the particular place in which individuals find themselves. An ability to accurately deal with numbers has benefits for engineers as well as taxpayers, consumers, and musicians. Verbal skills are utilized by salespersons as well as parents, lawyers, and politicians. Knowledge of the functioning of formal organizations is of benefit to those who work in large bureaucracies and those who must deal with our complex social institutions. I take the view that vocational and career education are a critical dimension of general education and should be a part of each individual's educational and learning experience. This does not mean that I endorse some kind of strained equal time formula. Nor does my position suggest that those in welding classes be exposed to Plato, Faulkner, or Parsons. Similarly I do not believe that each college sophomore would benefit by a day spent on the assembly line. Rather I am proposing that we put an end to the turf-status warfare and begin to deal with the ways in which we might improve learning and educational processes so that quality of life opportunities are increased no matter the work needs and desires of the individual.

Having provided you with a brief summary of my own personal views I turn now to a discussion of work and workers in America.

During the past fifteen years much has been written and pronounced with regard to the condition of the American worker. More recently the debate has centered about the question of worker alienation. A most helpful and profound insight to emerge from this debate is offered by Thomas Green.[2] Green simply points out that in much of the rhetoric people have failed to differentiate between work and job. Work being a more universal concept while job refers to a very specific activity. Keeping the separation of work and job in mind it becomes clear that many researchers and commentators speak of alienation from work when in fact they have been measuring alienation or disenchantment from a particular job or job setting. Hence we find that in many studies the question asked does not really deal with how people feel and think about work but rather how they assess the quality or opportunity of their current job assignment. Thus when the Gallop survey interviewers ask, "do you find work satisfying?" almost nine out of ten people reply yes. Yet when Harold Sheppard asked assembly line workers: "are you satisfied with yout job?" the percentage replying yes was less than sixty percent.[3] In general then it seems fair to say that while the majority of people do find the idea of work as being potentially satisfying there are numerous people who are less than pleased with their current job situation.

American workers, however, are not a monolith and do not necessarily feel and think about work in a singular manner. A variety of factors such as age, sex, socioeconomic status, ethnicity, and familial composition will influence work aspirations, work expectations, and job satisfaction. There are, however, certain generalizations which can be made about American workers and those preparing to enter the work force: First, work continues to occupy a central place in the lives of most Americans.

Secondly, there is little if any indication of a decline in the importance attributed to work. If anything, the old Protestant Ethic appears to have been invigorated by a growing desire to work to become something other than a means to an end.

Three, many Americans do experience a certain discrepancy between work expectations and job realities.

Four, a growing number of Americans are shifting primary concern from issues of salary and wages to matters of quality of work.

Five, prevailing economic and employment conditions will influence how people view work and the assessment they make of current work activity.

As for the future, there seems to be little reason to expect a shift away from the traditions and trends already noted. What we can anticipate, I believe, is a growing expectation upon the part of American workers that work opportunities be more plentiful; that work settings be more responsive to the physical, psychological, and health needs of the individual; that work structures and setting be more flexible and more in tune with varying life styles; and that workers be more actively involved in decisions which will affect their performance and needs.

The growing expectation will be that quality of life goals are as important to work as they are to other dimensions of an individuals life. Concern with improving the conditions and characteristics of work does not imply a desire to escape work responsibilities. The times have changed but the great majority of Americans, be they young or older, affluent or poor, male and female, would prefer work to welfare. There are also sufficient data which show that thousands upon thousands of individuals who are eligible are not on welfare rolls. Nor is there any reason to believe that the poor or the young are less committed to a work ethic than are affluent adults.

Ivar Berg, based upon an analysis of a 1972 study conducted by the Brookings Institute makes the following comments:

> Welfare recipients, according to the Brookings study, viewed public assistance with favour—with mild favour—only after they had experienced serious occupational failures; these failures the researchers found attributable to labor market conditions, not to the inadequacies of those who had become public charges.[4]

Both attitudinal and behavioral research should lay to rest the popular notion of a citizen-induced welfare ethic. People are not looking for a free or easy ride, they are seeking the opportunity and means which will enable them to conform to what are in fact societal work and self support expectations. Further, when work aspirations and work expectations are not met most people will continue the job search rather than opt out for welfare. If such were not the case we would not be confronted with the recent phenomena of under-employment. We would not highlight stories of Ph.D's driving cabs; of engineers selling shoes; of social workers hustling ice cream; of skilled workers as sweepers; and of many others desperately searching for any type of paid employment. Again, our major work problem is not the result of people unwilling to work. Nor is it fair to conclude that vocational and career skills alone will somehow open the door to productive and meaningful work.

Active pursuit of satisfying work and rising expectations for the quality of work are ingredients of a relatively affluent and open social system. Where jobs are scarce if not impossible to find, worker

language and activity directed at improving the quality of work decreases. One tends to be grateful for the job in hand, and one seeks out the mechanisms for assuring job security. The prevalent mood becomes one of relative deprivation, the quality of the work becomes a lesser personal issue, as the individual compares his situation with those who are unemployed or with those of comparable skills who hold even less impressive employment. Given a continuation of the current employment picture and a continued escalation in the rising of life style expectations, the problem will not be one of job alienation, but something far more serious. A growing population of well credentialed, skilled, and upwardly mobile, are angry and frustrated because they are unable to find work which matches individual and societal expectations. With policies enforcing equal opportunities, open admissions, and a rhetoric stressing that with proper skills and educational credentials the good life is available to all—the national climate has shifted from one of high aspirations to one of great expectations. Those who have bought the promise that with education, training, and the proper attitude one could write his or her own ticket, will not react passively to a social system which fails to make good its promise. The greater the proportion of the population experiencing discrepancy between career life style and expectations and reality, the greater the likelihood of social discontent. Keep in mind a most critical finding of the commission which studied the urban violence of the sixties. The commission concluded that those who were most rebellious were not the unemployed, but the under-employed; those who already had one foot up on the mobility ladder; those who had pursued the legitimate goals and means as prescribed by our society; those who had played by the established rules of the game.

I do not mean to sound as a prophet of doom nor have I concluded that our society lacks the resources or abilities to avoid a future where unemployment or underemployment are the dominate theme. My intent rather, is to call attention to what I and others see as a potential outcome unless there are changes in both the manner in which we socialize our youth for their futures; and in the manners in which we define and deal with work.

Assuming a scenario where employment opportunities in the future will be somewhat more abundant than is the case at this time and assuming a continuation in the rising tide of life style expectations I see no reason for anticipating a decrease in the campaign for enhancement of work quality.

Because our concern is with the future my emphasis will be upon youth. Clearly with the exception of the maintaining of social order the most critical task faced by every society is the absorbtion and integration of the young into the workings of the society. The one social and developmental group most frequently associated with the idea of work alientation and work dissatisfaction are the young.

Research findings make apparent that when there is control for age it is among adolescents and young adults that we are most likely to find expressions and behaviors of job discontent. Whether the research focus be upon assembly line workers; white collar executives; professionals; the military; or those employed in clerical positions—the findings are consistent and predictable. The young expect more and find less. Obviously these findings should not be construed to mean that all or even a majority of adults would not endorse the work goals and values expressed by the young. On the contrary we would be hard pressed to find adults who would actively seek to avoid work which is personally rewarding, meaningful, interesting, or challenging. The observed age variations are the result of differences in generations, socialization, and experience. Children are not necessarily carbon copies of their parents and each generation is a product of the unique historical and social events of their time. The norms, values and social climates of the thirties differed from those of the fifties, and similarly the social climate of the fifties stands in contrast to that of the seventies. The evidence

of change is both dramatic and for many traumatic. In past generations work was, for many, viewed as a social obligation—and a means to an end. For this generation of the young work is less likely to be seen as something separate from other important components of life. Work is viewed as an integral part of the total life style—less a means to an end—than yet another dimension which should provide opportunities for growth and satisfaction.

Along with the impact of generational differences is the influences of experience. For many adults initial expectations are lowered or at least tempered by work experience. Where expectations are not met the tendency is to resolve personal dissonance by either lowering expectations, denying to ones self and others that expectations have not been met, or by devaluating the importance one attributes to work.

No doubt there will be numerous youth who will follow the path of their parents and encounter obstacles to work expectations. At the same time I believe it would be wrong and naive to assume that the matruation process alone will somehow act to supress the frustration and disappointment of this generation of youth. The intensity of feeling will not, I believe be washed away by age. Those who will be available and seeking work during the course of the next twenty years represent a cohort with significantly more formal education than was the case of their parents. They will be a group who have been taught to expect and to demand more of themselves and their society. They are a group which has been taught to articulate and not to supress dissatisfaction. They are a cohort which has been bombarded with the promise of American strength, potential, and commitment. They are a group which has been taught that life is to be much more than birth-work-and death. They are a generation who have experienced both the rhetoric and realities of sexual, age, race, and ethnic equality. Finally, they are a generation which has taken seriously the proposition that if one plays by the rules and acquires the designated credentials one is entitled to the good life. Simply stated the young have taken us at our word and they will not be pacified by the time worn cliches of "thats life" and "youth is for the dreamers."

The young, we need to remember, are not all cut of a common cloth. Given the fact that some 40 million Americans are between the ages of 14 and 24 we should not expect a generational monolith.

We do not know that in matters of career *aspirations* there are few significant differences to be found among the young be they minority or majority, poor or affluent, rural or urban. Further we know that over the course of the past ten years career aspirations of women have expanded to where we now find less of a discrepancy between them and males. Although specific job preferences may vary there is consensus in the type of work desired. The emphasis, again, is upon work which is interesting, meaningful, personally gratifying, of benefit to the individual and society. Unlike their elders the young show less concern with matters of salary and job security. Significant differences are found among the various youth populations when we examine career *expectations* as opposed to *aspirations*. While expectations are growing there is still the feeling on the part of the poor, women, first generation college goers, and minority group members expecting to stay within the entrance or middle level white collar and professional occupations. Available data would suggest that those who expect less find less—such is particularly the case among women. Further, we find that there is the belief among the young, and no doubt their parents, that the higher the level of educational credentials the greater the career potential. Finally, we find that while those with higher expectations and with higher educational degrees do come closer to matching aspirations with expectations—there is a gap between the two and the discrepancy continues to increase.

A similar trend toward work quality concerns can be anticipated among those who leave the formal educational process prior to completion of the baccalaureate degree. While expectations in terms of occupational status will be of a level somewhat lower than that expressed by college and professional graduates—concern with the meaning and relevance of work will prevail. We do know that the young are more likely to abandon jobs that are perceived as unrewarding. We know also that they are more likely than older workers to act out feelings of work dissatisfaction either by taking the route of absenteeism or work schedule disruption. A common ingredient of the younger generation be they professionals or skilled workers is an insistance that jobs and work offer something more than that which parents found tolerable.

In summarizing the attitudes, values, and hopes of future generations I would conclude with the following profile: The majority will hold positive attitudes toward work. Their prevailing work ethic will place high expectations upon work and careers. They will view work as much more than a means to earn money, as a means to an end, as a means of attaining social prestige, or as a means of fulfilling adult societal expectations. Their ethic will include the strong belief that work must be individually satisfying and at the same time of real value to the society. The expectations for work and careers will not be considered as separate or apart from other important aspects of life. Work will be considered an essential and integral part of the individual's life, but not necessarily the most salient. Individual and familial relationships, will not be sacrificed for occupational success or mobility; rather work and families are expected to blend together in some meaningful and satisfying manner.[5]

We can also expect, unless changes do occur, that the young who are from poor families, minority youth more particularly, will have limited opportunities for career mobility, even if they hold appropriate educational degrees. These young people will be much more likely to experience educational settings with the most limited sets of fields of study and career alternatives. Furthermore, they are much more likely than middle class youth to be exposed to schools with terminal fields of study unrelated to advanced professional training. Of equal importance they are less likely to be exposed to learning experiences which emphasize the humanities language development, the arts, and literature. The opportunity to complete college, while it may enhance occupational status, does not provide equal access to the more prestigious, more challenging, and better paying occupations.

Similarly, traditional career expectations for women, held by those who socialize the young, neither continue to be appropriate or adequte for a society which articulates a commitment to educational and occupational equality. Young women and older women will in growing numbers demand access to careers which have traditionally been considered to be the exclusive domain of males. Increasing numbers of women will no longer be content to restrict themselves to part-time work, to work as teachers, social workers, to work which does not offer the same rewards and challenge as those available to men.

The future work force, then, should be viewed as one with the desire to undertake work. From all available data there is little reason to anticipate a population which rejects work. The problems of work and job alientation occur when people begin the process of finding work and when they actually begin to work. It is for this reason that I choose to place such a heavy emphasis upon the saliency of both available work opportunities and the structure of work settings.

As I mentioned earlier it is difficult to be precise as to anticipated fluctuations in specific career categories. The combination of demographic, economic, political, and social factors does, however, allow for certain general occupational prophecies. In the early 1900's almost 11 million Americans

were employed in agriculture and agriculture related work. By 1980 it is anticipated that less than 3 million Americans will be engaged in such work. In the 1900's 3 of every 10 workers were employed in service industries and 7 out of 10 were involved in the production of goods. By 1950 these proportions were more evenly balanced. By 1968 the tide had turned with more people in service occupations than in goods production. By 1980 it is estimated that the reversal will be complete, with 7 of 10 in services; 3 of 10 in goods production.

We have moved from being an industrial nation to a post industrial society. The change is signified not only by the places people work but in patterns of occupations: the kinds of work people do. We have and will continue to become a white collar society. From a total of 5 and a half million persons in the early 1900's (17.6% of the labor force) to 36 million in 1968 (47% of the work force) to 48 and a half million by 1980 or 51% of the total labor force.

Our work settings will continue to move indoors with more and more people employed by larger rather than smaller corporations and agencies. We can anticipate less in the way of a need for manual skills and more in the way of technical skills and scientific expertise. The shift will be from physical capacity to the need for verbal, writing, and thinking skills.

Within the white collar grouping the largest and fastest growing occupational categories are expected to be professional and technical. The growth of these two categories has outdistanced all others and there is little reason to expect a dramatic downward trend.

At first glance one might conclude that given labor force projections and the academic credentials of future workers all will go well for our society. The projections call for more and more in the way of science, technology, cognitive skills, and intellectual capacity-attributes to be acquired in institutions of higher education. From the population side the profile is one of more and more people acquiring more and more formal education. Unfortunately however, the match between the two is not accomplished by a simple overlay. The fit between available human resources and available work opportunities as we already know will not occur without dramatic changes in how we define and organize life and work experiences.

For one there are now and there will continue to be many workers who do not possess the skills and abilities which are required by a post industrial society. Michael J. Piore in his article, "Upward Mobility, Job Monotony, and Labor Market Structure" identifies the conditions confronting both those who are labeled as lower class and those who are working class:

> Jobs in the secondary sector are distinguished by the fact that, relative to primary jobs, they tend to offer low wages, poor work conditions, and little chance of advancement: to be managed by harsh—often capricious—supervision that is unrestrained by a cohesive set of work rules or formal grievance procedure: and to exhibit great instability and offer little employment security. The crux of the problem of lower class workers is that they are confined to this secondary sector.

Piore goes on to say that the complaint of the lower class might best be diagnosed as a "lack of social mobility." Such, Piore, concludes is not the complaint of the working class:

> The discontent of the working class seems rather to center on the precariousness of what has been achieved—to be an expression not of frustration at an ability to advance but the fear of falling behind their present position. Thus, in the early 1960's, the working class

was preoccupied by the threat of technological change; in the late 1960's it was preoccupied by the threat to its life style and employed security that it felt was posed by black and other lower class groups pressuring from below.[7]

For the children of the lower class, the working class, and the more affluent who have and will continue to earn the educational credentials which are supposed to assure mobility—the problem will be one of underemployment. My own research following the work lives of graduating college seniors shows that some sixty percent felt that they were holding jobs which they consider to be below their level of training. Some twenty-five percent enrolled in graduate or professional school only after they were either unable to find employment or could not find employment which they felt matched their training. James O'Toole estimates that "something like 80% of recent college graduates are employed below their levels of training."

The problem, however, is not confined to issues to unemployment or under-employment. There is also the frustration and pain that comes with employment which the individual finds to be monotonous, unchallenging, unrewarding, and does little to contribute to ones sense of worth and growth. The dilemma posed by work dissatisfaction should not be lightly dismissed nor should our response be one of indignation. The saliency of work is such that it cannot be separated out from all other areas of an individuals life. The frustration and anger that is stimulated by job dissatisfaction and job alienation is not always confined to the work setting. The spillover effects intrude upon relationships with others, with family, and play a strong part in assessments of self worth.

The severe by products of both unemployment and under-employment are well documented; including child abuse, drug use, familial disorganization, and crime . . . all further evidence of the critical roles of work in American society.

There are those who take the position that with continued expansion of technology and declining need for human work resources our society will become one with a primary emphasis upon leisure as opposed to work. Still others see such an outcome as desirable since an abundance of leisure is viewed as providing people with an excellent opportunity to pursue activities which will enhance individual growth and development. Further it is argued that an increase in the availability of leisure time will draw many out of the labor market; create new areas for employment; and play some type of ameliorative role for those without work and those who find their work tedious. While the leisure-work proposition is a fascinating one it does not appear to reflect the preferences of many Americans particularly the young. My own research and the work of others would lead me to endorse an observation made by O'Toole:

> The contribution of work to an individual's identity, self esteem, status and sense of order and meaning are probably too powerful to make unproductive leisure and attractive alternative. After all, it is through work that one becomes a full participant in society, and such a basic fact is not likely to change in the future.[8]

To this end there are, I believe, a number of tasks which should be studied by the National Advisory Council on Vocational Education and all others who are concerned with matters of education and work.

To begin with there is a need for much more in the way of methodologically sound research directed at measuring the success or failure of current vocational educational strategies. There is also a pressing need for the kinds of analysis which will shed some light on the question of relationships between various types of educational content and the business of work entrance and work productivity.

As I noted earlier the time has come for a joining of forces among those who are engaged in the education, training, and socialization of those who will have responsibility for the work future of our society. We can no longer afford the luxury of disfunctional seperatism between those who are commited to the goals of career-vocational education and those who are committed to the concept of general or humanistic education. Again, vocational and career education must be viewed as integral parts of the humanities, social sciences, and natural sciences. As the university professor of English must come to appreciate the saliency of career learning so must the instructor of accounting recognize the critical importance of literature, art, music, and philosophy. If the goal is achievement in work and life then there is a need for a blending of a variety of learning and educational experiences.

Advocates of career and vocational education should begin to devote much of their time to efforts directed at educating those who will be employing the future work force. It is not enough to assemble a profile as to what employers believe are the ideal characteristics and attitudes of those who they expect to employ. What is needed are programs which will help employers design the kinds of work settings and procedures which will take advantage of the skills, abilities, and expectations of those who enter the labor force. I am not speaking here of the traditional school of management approaches which have done so little to alter the mood of job alienation. Nor am I suggesting that there is a need to invest millions of dollars in work quality research. Models already exist in this country as well as overseas. Enlightened management has already learned that flexibility and choice in job design, length of work week, hours worked, and forms of compensation can contribute significantly to worker productivity and satisfaction. Still other corporations have introduced skill enhancement courses offered on site; providing workers with an opportunity for career mobility.

I do recognize that institutional change is not lightly accomplished. Even in non-profit institutions such as universities it is difficult to identify changes which are responsive to the students need for a humanizing and satisfying work experience. Universities continue to function, unfortunately, as prototypes of the much maligned assembly plant. No matter the difficulty involved it is essential that we undertake the effort to match work settings with the needs and desires expressed by those who will be doing the work.

We need also to increase our efforts to eliminate racial, age, educational, sex, and class barriers which mitigate against employment opportunities and career advancement. Despite the rhetoric the fact remains that such discrimination continues to flourish not only in the market place but in many of our educational institutions.

We should also accept the fact that there will always be some tedious, dirty, unrewarding, and unpleasant work to be done. Individuals undertaking such work should be provided some benefit other than the lowest of wages. As combat troops were rewarded with an added bonus such should be the case for those who must undertake the critical but dirty work of our society. These added benefits could take form of higher wages, shorter work hours, or educational-learning opportunities geared to enhance career mobility.

Further, it is time that we put into practice our talk about the need to re-define the meaning of work. The current definition of work as being something one is paid for does injustice to the serious and necessary work being carried out by millions of people. The work of raising and caring for children, for the sick, and the aged. The voluntary work being carried out in schools, hospitals, community centers, and community agencies is often of greater societal benefit than much which falls into the category of "paid work."

As we move toward the broadening of our definition of work it is also essential that we seek to create new areas of work. There is much legitimate work to be done if we are serious in our intent to resolve problems of illiteracy, poverty, environmental pollution, energy shortages, and urban deterioration. New skills need to be developed and taught to those who will be responsible for the management of a steady state society; new fields of research and study will be required if we are to clearly understand and cope with the realities of dwindling resources. Much work needs to be done in the fields of futures so that we might be better able to anticipate the alternatives which will be available to our children.

As W. Willard Wirtz and others have proposed the time has come for a re-examination and modification of the lock step process we have utilized in the manner in which we respond to human development. The idea that the young are to be isolated from the world of work until they have completed educational standards imposed upon them by adults has already been shown to be harmful. We might do well to recall that in the post industrial society youth were viewed as essential to both the familial and community economy. Placing the young in a constant posture of dependency not only limits their own sense of self responsibility but also prevents the utilization of a much needed human resource. The young are physically strong, they are energetic, and they seek to make some contribution to their society. There is no reason why the young need to remain in a fixed educational holding pattern. Youth should be encouraged to depart from formal studies—undertake serious work—and later if they so choose to return for further study. Certainly exposure to work, to others and to the realities of a heterogeneous society would be a valuable form of education not easily accomplished in the classroom. Similarly, there is no need for adults to stay on the job, and out of other developmental settings, until they reach the age of retirement. Adults and youth should be given every opportunity to interact with one another, to test out different kinds of work and learning experiences, to have greater flexibility and choice in the types of life styles they choose to pursue. The contemporary businesses of youth socialization only enhances generational segregation causing barriers to be established between children, youth, adults, and the elderly. Rather than creating the kinds of settings which would increase generational interaction and learning we follow a pattern geared toward generational isolation. I have seen in my own university the benefits that are gained when a classroom is filled with students of different ages and backgrounds. The various perspectives presented by the young, the older, men and women, minority and majority—not only makes teaching more challenging but more important, makes learning more exciting and relevant.

There are also economically benefiting arguments for breaking down the lock step school-work-retirement syndrome. Greater flexibility in life style approaches would increase job turnover and therefore enable more people to find employment. The ability to depart from school and work for brief periods of time would not only provide a much needed relief from the routine but would enable the individual to gain those experiences, skills, and time needed to return to either school or work with a fresh if not new perspective and commitment. Further, many institutions of higher education are in serious enrollment difficulty. Residential halls are not being utilized to capacity; faculty are being dismissed, and whole programs are being eliminated. Why not move to bring those who have retired or other adults who so choose to the campus as full time students? I would speculate that there are thousands upon thousands of highly energetic and intellectually curious retirees who would gladly exchange their mobile homes and trailers for the college campus. Housing would be less-costly, less environmentally damaging, and more energy efficient than is the case with automobiles and trailers. A campus where one not only has the opportunity to pursue skill and intellectual interests but the chance to interact with the young; attend concerts, movies, and athletic events.

The concept of flexibility and choice would also include a willingness to be more eclectic in our definition of full time work. At this point the model is for a full time job to be accomplished by an

individual. At the same time we know that there is a growing sentiment among young men and women that outside work not be the sole domain of the male—and that males play a more active role within the home. The solution seems simple enough—why not allow husband and wife or any other two qualified individuals to share a single job? It would seem to me that such a practice would provide employers with an added bonus since they would in fact gain more than would be the case with a single employee. At the University of Houston as well as at other universities there has been a marked increase in the number of couples—both equally qualified and equally eager to work—seeking employment. Unfortunately, limited dollars precludes the possibility of offering a position to both husband and wife. The alternative of course would be to offer the couple a single position, and there are many couples who would be pleased to accept such an offer. The barrier then becomes one of institutional policies which prohibit the hiring of husband and wife and questions of salary increase and tenure determination. No doubt similar barriers would emerge in other institutional settings. Yet, we need to recognize that these are human implemented barriers and there is no reason why they cannot be modified.

Flexibility and choice should also be viewed as an excellent opportunity for those in the field of vocational education. Certainly an increase in the number of people moving between education and work would increase both the need and market for vocational skill training. Flexibility and choice would also mean an expansion of the concept of vocational education—where such an activity need not be viewed exclusively as training for paid employment. The evidence on hand is that there are many people who seek to acquire added skills not so much for employment purposes but for their own sense of achievement and as a means for reducing the costs of having to call upon the services of others. Skills which will enhance quality of life and individual growth are not less important than skills which may enhance employment opportunities.

Finally, I do feel the need to raise a warning flag. Over the years colleges and universities have lost much of their stature and credibility. In large part this decline in status can be attributed to our failure to deliver that which we promised. Primarily, we promised our clients that educational credentials would act as the magic key to entrance into the most stimulating and challenging of work opportunities. We made much of poorly construed data which suggested a continuous positive correlation between formal education and income. The realities, as we now know, are that the gap between credentials and income is less than we thought and continues to decrease and that credentials alone will not turn the career trick.

Our lesson, I believe, does have implications for advocates of career and vocational education. We can no longer give the impression that degress and acquired skills alone will be sufficient or a guarantee of meaningful and improved employment. What we can say is that we are dedicated to providing all people with the types of learning experiences which will best enhance their opportunities to pursue the life style they choose for themselves. That we will seek to expose all people to a wide range of ideas, skills, and knowledge. That while we cannot guarantee the direct employment and career value of the learning experiences provided, we can say with some assurance that our wares will hopefully be of some value in the marketplace and will help make people better citizens and more understanding human beings.

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AN ECONOMIST'S (Solicited and Surprisingly) CHEERFUL MESSAGE TO VOCATIONAL EDUCATORS

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Given the record of the economic profession during recent years, seeking advice from an economist about the future appears to be an act of charity. Or is it a case of misery loves company? Vocational education may be able to take some comfort from the status of the economics profession. By comparing with the record of economists, any assessment of vocational educators looks good, indeed.

Few, if any, economists foresaw the sustained high unemployment and inflation which hit us in the 1970s. But now that we have been hit, there is a surfeit of Jeremiahs writing foreboding scenarios predicting that the closing quarter of the 20th century will be one long and painful disaster. While it would be unwise to count on the latter part of this decade, or the next, to be a period of vigorous "Go-Go" years, it would be equally unjustified to blindly surrender to pessimistic impulses.

Turning to projecting economic impacts on vocational training, the task is not as difficult as it might appear. Not only because projections about a decade hence are not as easily verifiable as a prediction about next year's event, but also because the variables we are dealing with are, for the most part, straightforward and not subject to roller coaster movements. Changes in vocational education are neither as erratic nor unpredictable as Dow Jones, the price index, unemployment, or the prime interest rate. Trends vital to vocational education show consistent relationships that can be relied on for forecasting the problems confronting the vocational education establishment.

The first thing any card carrying economist should talk about is supply and demand. Although it would be an oversimplification, the basic balance that vocational educators aim for is the balance between a supply of workers—students trained in particular skills, and the demand for those workers—jobs that have to be filled. This is no revelation, the truth of the axiom is self-evident. But there are a number of variables on both sides of the equation that have certain ramifications for vocational educators.

Who Will Be Looking for Jobs?

The main ingredient in determining supply is the number of persons who might be looking for work and the kinds of background those persons will bring with them. The population which the vocational educators will be dealing with in the 1980s is already born. Barring a national calamity of major proportions there will be some 14.4 million youngsters age 14 to 17 years by the middle of the next decade and 27.8 million between the ages of 18 and 24 years. Beyond the 1980s this picture is a little cloudier. While the fertility rate may show modest increases in the coming years, as a substantial portion of the female population realizes it's either now or never, it appears safe to assume no more than minor increases in the current birth rate.

The level of education is also easy to predict. The proportion of youths and young adults who are likely to be in school is also practically given. We can assume that the proportion of youths and

young adults who are now in school will not change during the coming decade. Certainly there is little reason to anticipate significant changes in the percentage of youths leaving school below age 18. Therefore we might anticipate that nearly 9 of every 10 youths will remain in school until they reach 18 years of age.

We are on somewhat shakier ground in making projections about the number of young adults who will continue longer (or shall we call it higher?) education past 17 years of age. The argument is frequently advanced that as the rewards of longer education decline, youths will have less incentive to continue with their education. However, it is still far from clear that the rewards of higher education are precipitously declining. While the advantages of longer education may have been oversold in the past, there is a real danger of going to the other extreme. According to recent data the average high school graduate still can expect his or her lifetime earnings to be 23 percent higher than that of a person who did not complete high school. A college graduate on average still can expect that his or her lifetime earnings will be almost twice as great as a person who has not completed high school and three-fifths greater than a person who has not gone beyond high school.

There still is a demonstrated advantage to having higher education. It might further be argued that as the supply of more educated workers increases, those with less education will fall farther behind, and the mere need to compete even for less attractive jobs will be a sufficient inducement for youngsters to continue their education. It is not at all clear that the pursuit of longer education is going to decline. We might therefore also assume that the present level of educational activity beyond high school will continue with three in ten young adults between the ages of 18 and 24 remaining in school.

If the longer education projection is correct, the educational background of the labor force will change. Already more than a majority of the participants in the labor force have at least a smattering of college education. Within a decade, the number of college graduates in the labor force is going to increase and account for more than one of every five employees compared with one in eight today. The number of workers with one to three years of college education is also going to increase, although at a slower rate than college graduates.

Ramifications for Vocational Educators

These projections about the educational attainment of the labor force contain the seeds of a serious problem that vocational educators will have to face. During the past two decades, the proportion of college graduates in the labor force increased much faster than the total growth in employment. Some of the added eight million college graduates since 1960 have been absorbed in newly created jobs which traditionally required a college education. But many others were employed through an inflated credentialing process which society decreed would be open only to those endosed with a bachelor's degree.

If the United States Labor Department projections are correct, it is not likely that the economy will be able to generate enough so-called "college required" jobs for almost a million new college graduates every year and some 600,000 persons with one to three years of college education. This would mean that in some cases vocational education graduates would have to compete with youths and young adults considered better "qualified" because they have completed some years of college or have even attained bachelor's degrees. It is more likely that many of the college-educated, in order to find their niche in the workforce, will displace lesser educated workers who are trained by vocational institutions.

A second ramification of this increased competition very well could be a slight shift in the composition of students taking vocational education courses. The argument for vocational courses could be alluring to an increasing number of college educated or semi-college educated young adults unable to find jobs. This could mean that vocational education will become another adjunct to the higher education system. But here again the cutting edge to the competition will be based on college education.

Whatever the degree of competition for jobs traditionally filled by graduates of vocational education institutions, the more crucial issue is whether there will be enough jobs for all those who will be entering the labor force. Given the decline in birth rates during the past 15 years, the population reaching working age during the 1980s will decline from that of the present decade. The 2.4 million annual increase in population reaching working age during the past decade is going to drop to annual increase of about 1.6 million. This slowing of population growth is, as was noted earlier, not a guess because all of the people who will reach working age during the 1980s have already been born. The second factor which will influence the size of the potential workforce is the number of families which will want more than one paycheck coming in. The number of multiple paycheck families has risen from 43 percent in 1960 to 56 percent in 1975. The economy will be asked to provide jobs for many women who have traditionally remained outside the labor market. On balance, however, it is safe to assume that the impact of the declining population growth will more than offset the opposite force of different categories of people entering the labor market.

The prospect of young adults being "crowded out" of the labor market or competing for jobs for which they are over-qualified isn't pleasant. But there's reason for some optimism if a slower growth in labor force participation has the effect of tightening up the labor market. In both cases our view is distorted by looking at only one side of the equation. The determinant of what ultimately happens to the supply of young workers is the demand for them. Any realistic forecasts of the vocational education environment must also take into account the variables on the demand side of the equation and build upon anticipated developments in the economy.

Will There Be Enough Jobs?

There is little agreement among economists on whether the economy is capable of generating enough jobs without stimulating prohibitive inflation. Many economists have argued that efforts to reduce unemployment below 5 percent, or even a higher percentage figure, will result in an accelerating rate of inflation.

The assertion that we have to learn to live with high unemployment rates reflects more the biases of certain analysts than the facts. The claim is based on the experience of the past decade where lean years were followed by fat ones, and stability was indeed a scarce commodity. While tight labor markets (less than 4 percent unemployment) may be a distant prospect in light of our experience during the 1970s, there is no reliable evidence that it cannot be achieved again.

It is more persuasive to suggest that the record of sustained propserity during the 1960s demonstrated the ability of the nation to achieve low unemployment at modest, though upwardly drifting, rates of inflation. The best way to find out whether high inflation will follow tight labor markets is to adopt policies which would lead to sustained economic growth. Only dedicated pessimists would settle for less. The experience of the 1970s makes it clear that planned unemployment is an efficient means of fighting inflation. Such tactics gave us the worst of both unemployment and inflation.

If as a nation we decide to live with such high rates of unemployment, the problem of young adults being crowded out of the labor market and vocational training opportunities will be quite serious. Policies designed to create sustained economic growth will vastly reduce the magnitude of the problem, and could, in fact, alleviate it.

Measuring Productivity

But even if the economy generates enough jobs, will they be worth the competition? Will real wages increase or at least stay constant? Because real wage levels depend directly upon productivity levels, economists attempt to answer these questions by looking at productivity, or output per worker. They have designed tools, albeit far from perfect, to measure productivity which they define as the ratio of labor, capital, energy and other inputs required for a given output of goods or services. There are many ways to measure productivity, but for our purposes, the concept of production per work hour is probably most appropriate. This measurement compares the total value of goods and services (measure in constant dollars to avoid an inflationary bias) produced by a nation's economy with the total number of hours worked.

Although annual changes in productivity have fluctuated with business cycle conditions, the long term trend of productivity is comforting since it tells a story of continued growth. Average annual productivity has risen at the rate of nearly 3 percent a year since World War II, doubling output per hour in 24 years. This sustained and steady growth in productivity has allowed the American people to enjoy an ever increasing standard of living and has made it possible for wages to keep on climbing continuously even after adjusting for the rise in inflation. Higher real wages hinge on higher productivity levels.

Although the past may be prologue to the future, it is no guarantee that past productivity growth rates will be maintained in the years ahead. In fact there is room for concern, because during the past decade the annual rate of productivity increases has been half that of the preceding two decades.

At this point, not only does the economist's crystal ball become cloudy, but even past measurements are increasingly murky. Measurements of output per work hour are more reliable for the production of physical goods and are much less dependable in the service industries where the output is harder to quantify. Also, government services, which are not bought and sold, can be approximated only by the wage rates paid and the number of hours worked. These indicators, however, will reveal no change in labor productivity, since the output and input measures are identical. As a result, government services which are becoming increasingly more important are usually excluded from national productivity totals.

Victor Fuchs of the National Bureau of Economic Research and Stanford University, possibly the foremost authority on productivity in the service industries, has concluded that the growth of productivity per worker since World War II in the goods-producing industries was twice as great as in the service industries. As the proportion of workers engaged in service industries increases, he reasons, economic growth will necessarily slow. If these projections prove to be correct, it would mean that the annual rate of real wage increases for American workers is going to slacken. But predictions of slower growth, or even stagnation, are not new and changing technology may again speed up overall growth in productivity. Even assuming that the rate of growth should decline, while it is regrettable, it is not crucial. The American economy has already achieved a standard of living that provides for more than just mere necessities and the increased emphasis upon services is a choice that American consumers are making and suggests a tradeoff between increased productivity and clearner air or better health.

Moreoever, a reduced productivity growth may have a silver lining because it will lessen the pressures on the economy to generate additional jobs. For example, when annual productivity grew at a rate of 3 percent per year and the labor force increased by half that amount, the economy had to generate an additional 4.5 percent jobs (assuming no decrease in hours worked) just in order to prevent any increase in forced idleness. The project decrease in labor force growth as well as productivity should therefore ease the pressure on the economy to create more jobs. It is also important to bear in mind that the reduced rate of growth in productivity would not necessarily involve a commensurate slowdown in the rising standard of living because the decline in the birth rate would mean that wage earners would have to share their total income with smaller families and thereby per capita standard of living might actually continue to grow at the previous rate or even at a higher rate.

In all this discussion it is important to distinguish between rates of change and totals. Just because an automobile slows down to observe a reduced speed limit, it doesn't mean the car has been thrown into reverse gear. Ideally vocational educators, and all Americans, would like to see annual productivity gains increase at an ever increasing rate. Even with diminished rates of annual productivity gains, the economy still would be growing. It's important to remember, however, that there are limits. Vocational students and educators won't be facing endless horizons; and realistic expectations are required. It is the unpleasant role of an economist to point out that not all things are possible.

Occupations and Earnings

Even if we assume the worst about economic growth in the 1980s as compared with the preceding decade, there still will be numerous jobs to be filled. Realistically, the problem isn't whether the number of needed new jobs will increase, but rather will they increase at a fast enough pace. The projections of Leonard Lecht and his associates of the Conference Board are most helpful in this respect. They anticipate that there will be a total of 2.8 million annual job openings in 123 occupations and job clusters which are traditionally in the domain of vocational education. These 123 occupations account for 85 percent of all enrollments in federally-supported vocational education and for more than half of total employment.

The shift toward white collar jobs is going to continue and these occupations will account for three of every five job openings in the aforementioned 123 occupations. Craft and operative jobs will account for nearly one of every fourth job openings; and the balance will be in-service occupations, except for farm jobs which will account for less than one of every hundred job openings. About one out of every three job openings will be a newly generated or added job while the other two jobs will be opened because of retirement or attrition.

While these broad job categories have little operational significance to vocational educators in terms of planning specific training, the overall occupational projections of job openings provide some guidelines for judging the adequacy of current vocational education relevance to the available jobs in the years ahead. The greatest discrepancies exist, according to the Conference Board study, in agricultural and distributive education. Current enrollment in agricultural training is about 15 times higher than anticipated annual job openings. On the other hand, distributive education accounts for one of every twelve vocational enrollments but it is anticipated to provide one of every four job openings. There is also a deficit in training for health occupations which now account for less than four of every hundred enrollments in federally-supported vocational education program compared with one out of ten anticipated job openings.

Beyond Supply and Demand

The factors that can be plugged into the supply-demand equation are frequently overshadowed by subjective forces that don't lend themselves to quantitative scrutiny. But that does not diminish their importance to vocational educators trying to develop realistic expectations about the future. Two important ones are the motivation of vocational education students to seek work, and if they do go out and work, what price will they demand for their labors.

Demise of the Work Ethic?

Assuming that the economy can generate a sufficient number of jobs to absorb all the hopeful entrants to the workforce, there is still some question in the minds of many people as to whether American youth is interested in training or in work. For a change, the labor market economists can come up with some clear-cut evidence to negate the assertions about the presumed death of the work ethic. It is true that labor force participation rates of 18 and 19 year old male youths continued to decline during the first two decades following World War II. The culprit, however, was not the rejection of the work ethic, but a commitment to longer education and preparation for work. Increased affluence partly due to more mothers opting for work instead of home care also reduced the pressure on teenagers to supplement family budgets. But the facts show that the past decade, which presumably witnessed the demise of the work ethic has not reflected any change in the work commitment of America's youth. Labor force participation (including armed forces) of 18 and 19 year old males has been on the increase from 69 percent in 1965 to 73 percent a decade later, while females in the same age category have registered the highest labor force participation rate since the end of World War II, rising from 49 percent to 58 percent.

For the time being, the evidence about the deteriorating work attitudes consists of anecdotes. With little hard data to support the argument that work attitudes have undergone an upheaval. Analysis by the Bureau of Labor Statistics show that quit-rate fluctuations are almost entirely explained by the availability of jobs, rising during good times and declining when job deficits rise. Sparse data on absenteeism reveal that is has increased only a fraction of a percent in recent years. Labor force participation statistics indicate that instead of "dropping out" more youths are ready to join the work force.

The Price of Work

Even if overall there is an adequate number of jobs available and young persons are willing and able to fill them, many vocational educators are worried about the relatively low earnings of the occupations for which vocational educators train their enrollees. Fully two of every three jobs that are filled by vocational education trainees paid less than the median annual wage. Will a sufficient number of youths continue to show an interest in training for the less prestigious and lower paying jobs which have historically gone to may vocational education graduates? Here again economists can offer an explanation, crass as it is. Virtually every measure of worker's behavior indicates that money is still dearest to the heart of most workers. In decisions concerning where and when to work, income is the most important variable. Regardless of the nature of the work, surveys of job satisfaction show income to be a powerful "pacifier." Although public spirited citizens may decry the low prestige that society assigns to some jobs, from the inside looking out, money not prestige, is the important factor. So what is the prospect for earnings in these jobs?

If expanding longer education prompts more potential workers to reject the jobs that are related to vocational training, then the supply of potential workers in these occupations is going to decline. Economists may have overplayed the role of supply and demand, but the basic relations remain valid today as they have always been. If the demand for a given commodity or service remains constant and if the number of workers who are willing to supply that commodity or service is going to decline, then the cost of labor is going to increase. This would mean that if there is a decline in the supply of labor to do the jobs that have been traditionally filled by graduates of vocational education training, then the price of those jobs is going to increase while the price of jobs which are oversupplied with longer-educated candidates is going to decrease. This might mean a reversal in the traditional hierarchy of jobs and the once low prestige jobs are going to be rewarded by society with relatively more pay than jobs for which there is an ample supply of candidates. There are already isolated instances of this phenomenon. The danger is, however, to exaggerate their importance. For the time being, there is little evidence to suggest that the traditional hierarchy of jobs have been radically overhauled. Regardless of the eventualities, however, it is doubtful whether vocational education planners should attempt to control enrollment, and thereby presumably reduce supply in occupations which pay less than average wages, even if that were within their power. It is not at all clear that it is the role of the vocational educator to attempt to control or even to impact upon the distribution of earnings in the labor market. It would appear that this would best be left to market forces or to unions and other groups whose function it is to protect and advance the interest of their members, and that this is not a proper function of vocational educators.

Planning for What?

Assuming there will be plenty of work to do and enough hands (and brains) seeking jobs, vocational education planners still lament that they do not know what tomorrow's occupations will be and therefore find it difficult to plan. A glance at the largest occupational groups suggests that these concerns are exaggerated since none are likely to undergo rapid change, if past experience is any criterion. Projections indicate that a decade hence there will be some 6 million secretaries and typists, 2.8 million retail sales clerks, 2.7 million truck drivers, 2.4 million nurses and aides, and 1.9 million bookkeepers. The medicine in bottles that nurses gave their patients before may now be packaged in pills, and the technology of bed pans is not likely to change in the foreseeable future. Secretarial basic duties have not been altered since the introduction of the typewriter almost a century ago. The last great change in the jobs of retail sales workers was the invention of the cash register in 1879. Despite the new math, a bookkeeper still has to be able to add and subtract numbers. The skills involved in driving a truck are of more recent vintage, but have not changed since the production of the Model-T car. No doubt the job content of the above occupations have changed in some details but few would argue that these jobs have been revolutionized by technology.

Even in areas which have experienced major technological change, the emphasis still must often be placed on old fashioned basics. For example, some observer argued that the introduction of computer controlled machine tools in the metalworking industry would filter down to vastly alter vocational training in this field. While computer controlled machine tools have expanded the knowledge which must be transmitted to students, the foundations of any machine shop education must include the basics which have not changed for many years.

The changes occurring on the frontiers of production technology affect comparatively few workers. When such a change does occur, it is not likely that satisfactory projections can be made about the demand or that vocational education facilities could expand rapidly enough to provide for

the need. It is more likely that the demand will be filled from diverse sources and particularly on the job. A good example of changing technology is the expansion in computer operators from a mere 2,000 in 1960 to roughly a quarter of a million today. Most of the initial demand was filled by on-the-job training and where demand expanded, institutional training, private as well a public, proliferated and the supply before long exceeded demand.

Despite the scares propounded by the once popular prophets of cybernetics, technology does not change as rapidly as they claimed. Job content tends to change slowly, although the changes may have a compounding effect so that over a lifetime the duties of some workers may change radically and in many cases complete occupational changes become necessary. Vocational education institutions cannot be expected to foresee technological changes that would occur decades hence and adjustment to these changes can best be made on the job and should be of little concern to the vocational educator. The task of vocational educators is to keep pace with changing technology and adjust their course content to current changes in the market place.

The lead time for planning vocational education is sometimes exaggerated. In actuality, the "input" provided by the vocational educators to produce a trainee varies little during the first ten years of schooling. Reading and spelling apply equally to the future physicist as the potential laboratory technician and both can be served doses of arithmetic with equal benefits. The major task of vocational planners is to prepare students for immediate available jobs. As long as these are not declining occupations, it matters little to the person who has a job whether the future growth in employment will be faster or slower than national rates. Of course, students should not be prepared for occupations with bleak prospects. The best vocational education planners can do is to consider the immediate needs of the economy and the individual since the horizon we can foresee and prepare for with an accuracy is not too distant.

The most detailed data needed by the vocational educator are one to five year projections. While these are preferably derived from careful analysis of a variety of economic factors, they can also be estimated from a simple extrapolation of recent trends mixed with a good dose of insights into local conditions. It is a fair bet that recent developments will continue over the next three to five years.

The required projections are not as difficult as might be assumed. Buildings have a long life, but they exercise little constraint on curriculum choices. Lack of vocational projections is probably less of a barrier than structural and institutional difficulties.

The Military As A Vocational Education Resource

Another important ingredient in the vocational education planning process is an assessment of the "competition"—other, non-vocational education institutions that in fact are engaged in training. None is more important than the military establishment which is playing a large and growing role in this area, yet its training contributions are too often ignored. The armed forces like colleges can act as aging vats where youths mature and they also offer much of the same training as do traditional vocational education institutions.

The popular image of military training features jut-jawed instructors barking instructions on maneuvering obstacle courses. However, this image belies the vast vocational education system operated by the armed services to train personnel to man and operate a virtually self-sufficient society. The skills traditionally identified with and unique to military service such as driving tanks, operating

artillery, and serving in the infantry, are practiced by less than one in seven enlisted personnel. The increasingly technical and sophisticated all volunteer force requires literally armies (or navies) of electronics specialists, a wide spectrum of craftsmen and technicians, clerks and administrators, medical personnel and service operators to run machinery, and to clothe, house, and feed more than 2 million people. The fact that some military training programs are already being packaged and used by civilian vocational schools illustrataes overlap of the two systems.

At present the services rely very little on the civilian training to provide their skilled manpower. Rather, they recruit (previously by special invitation) young untrained men and women, a significant minority of whom failed to complete high school. To integrate these unskilled recruits into the military system, the services operate a vast training establishment which carries this year an estimated average training load of over 200,000 individuals at the cost of close to $6 billion, double the amount expended by federally-supported civilian vocational training. Over half of the military training costs and training load is for specialized skill training.

Due to the military's budget constraints, services operate no-frills training programs concentrating on what personnel need to know for their job and omitting "nice to know" material. Even with longer basic enlistments in the all volunteer establishment, initial skill training skill tends to be narrow and specialized. Yet paradoxically, training opportunities are a big selling point for enlistment in the all-volunteer services. Volunteers are choosing a stint in the armed forces with the idea of carrying over their military training and experience into civilian occupations. Increasing numbers of the estimated 350,000 projected to leave the armed forces each year will want to round out their military background with civilian vocational education. This environment enhances the potential for a symbiotic relationship between military and civilian vocational training establishments. The vocational education establishment would do well to view the military as a complementary rather than competitive system. Graduates from both systems and the nation would benefit from the cooperation.

Investing In People

Vocational education has gotten more than its share of criticism in the past few years. In planning for the future there is obviously a great deal of confusion about what the choices are and which options to choose. But an important thing to remember is that there *is* a future for vocational education. It does provide an indespensable "product."

The overwhelming majority of economists who have studied the data related to economic growth and development have found that increases in both output and productivity cannot be explained by only looking at technology and increased capital investment. There is a residual which can't be explained by only looking at machines or raw materials. That residual is the improved quality of the work force—people.

Economists have found that in numerous cases the rate of return from investment in people through such areas as vocational training is far higher than the rate of return from investment in machines. Leaving aside any social or political considerations for the moment, and considering only cold, hard dollars and cents, vocational training pays off and is an essential component in any expanding economy. The dismal science turns out not to be that dismal after all. My crystal ball does not show any roadblocks which can't be overcome.

The unflagging demand for human work is not soon to be outmoded. And despite the historic advances in productivity, the percentage of workers among the population has actually increased

during this century. During the past generation, almost all of society's productivity gains have been channeled into raising standards of living rather than allowing individuals to work less. Not only have people demanded more and more of the traditional goods which represent material comfort, they have expanded the scope of their desires to include goods and services formerly undreamed of. Though technology has provided equipment able to support society with far less labor, ever-expanding expectations have more than absorbed this manpower.

The task of vocational educators will remain as it was in the past—to prepare vast numbers of workers to enable them to perform their life's work better and thereby also increase society's productivity. There is apparently no satiation to the goods and services that they demand, and this is not likely to change in the foreseeable future.

THE DEMOGRAPHIC AND EMPLOYMENT PERSPECTIVE FOR THE FUTURE OF VOCATIONAL EDUCATION

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The effectiveness of vocational education programs centers around their ability to provide training to individuals preparing for work that is relevant to the skill needs of employers. More than 95 million people in this country are in the civilian labor force, either working or looking for work. By 1985, this number is expected to be even larger—109 million.[1] Much has been written about how these people go about the choices involved in occupational selection and education.[2] The process is a complex one, involving such factors as personal aptitude, socioeconomic status, sex, race, cultural and family tradition, as well as labor supply and demand. In recent years, increased information has been made available to individuals so that all of the variables can be better understood. At the same time, efforts have been undertaken to provide vocational education planners with a more comprehensive data base so that anticipated changes in labor force demographic composition as well as projections of future industry employment trends and occupational requirements can be used in curriculum planning.

Changes in Population

Planning for the future of vocational education must start with people. Vocational education programs—or any other kind of occupational training for that matter—must start with evaluation of the size and age of the population who are expected to benefit from training. For example, if the population of 20-24 year olds were expanding rapidly while the number of 15-19 year olds, the primary age group served by secondary programs, were declining—and all other factors remained equal—vocational planners might want to focus more of their efforts and resources on programs for the 20-24 year age group.

The decline in the birth rate which took place during the 1960's and early 1970's, coupled with improvements in health care for older Americans will result in a gradual aging of the population, a trend with profound implications for the planning of vocational education programs.

The number of teenagers 16 to 19 years of age, the typical age for high school students, is expected to decline by nearly 2.5 million by 1985. The 20-24 year old group will increase slightly, and significant growth is projected for the adult education age group. By 1985, we expect to have almost 70 million adults in the 25-44 age group, an increase of well over 17 million persons (Table 1). Their needs for vocational education should be a significant consideration in vocational planning over the next decade.

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[1]See U.S. Labor Force in 1990: New Projections, BLS Press Release, September, 1976 for latest projections to 1985 and 1990.

[2]A brief review of a larger number of these studies is found in Levine, Adeline, "Educational and Occupational Choice: A Synthesis of Literature from Sociology and Psychology" in *Journal of Consumer Research, March 1976.*

Table 1
Civilian Noninstitutional Population and Civilian Labor Force, 1975 and Projected 1985
(Numbers in thousands)

	Civilian noninstitutional population		Civilian labor force	
	Actual 1975	Projected 1985	Actual 1975	Projected 1985
Total, 16 years and over	151,389	171,900	92,613	108,602
16–19 years	16,274	13,888	8,798	7,943
20–24 years	18,255	19,501	13,467	15,124
25–34 years	30,080	38,964	22,310	30,231
35–44 years	22,363	30,820	16,781	23,915
45–64 years	43,106	43,396	28,317	28,372
65 years and over	21,305	23,331	2,939	3,017

Source: The 1975 population was estimated from U.S. Bureau of the Census, *Current Population Reports*, Series P-25, No. 614. The 1985 population projection was derived from the Bureau of Census *Current Population Reports*, Series P-25, No. 601. Labor force data for 1975 are taken from the Current Population Survey and 1985 data represent BLS projections, September 1976.

These trends anticipated for the future are especially interesting when compared to the proportion of target populations that have been served by vocational education programs in the past. In 1965, almost 17 percent of the 15-19 year olds in the population were enrolled in some kind of vocational education program.[2a] This proportion has increased every year since then and in 1974 had reached 41.3 percent. Enrollments of 20-24 year olds rose from less than 2 percent to almost 9 percent over the same period.

Quite a different trend has occurred at the adult education level, however. The proportion of the 25-64 year old population enrolled in vocational educational programs has increased from 2.9 percent in 1965 to 3.7 percent in 1974, but the proportion reached 3.7 percent in 1969 and then declined before getting to this level again in 1974.[3]

[2a]Data on vocational enrollments and analysis relating BLS data to vocational education data used later in this paper were developed by members of the BLS Occupational Outlook staff. I would like to express my appreciation to Neal Rosenthal and his staff for this work.

[3]Calculations by BLS staff based on enrollment data published in *Employment and Training Report of the President, 1976*, U.S. Department of Labor and U.S. Department of Health, Education and Welfare; *Estimates of the Population of the United States by Age, Sex, and Race, April 1, 1960 to July 1, 1973*, April 1974. U.S. Bureau of the Census; and *Estimates of the Population of the United States by Age, Sex, and Race, 1970-1975*, 1975 U.S. Bureau of the Census.

These trends may, of course, change in the future. The particular course they take will be very much affected by the extent to which government, industry, and trade unions develop and extend occupational training courses, on the job training and apprenticeship programs as well as to the changing attitudes toward college preparatory education.

Changes in Labor Force Composition

Changes in the age distribution of the population are important for vocational education planners, but they do not, by themselves, present a complete picture of future labor force trends. Over the last two decades, radical changes have occurred in the composition of the labor force which have important implications for the future of vocational education and the transition from school to work. In the last 20 years, the female labor force has risen by 16.5 million, an increase of 80 percent. The female labor force participation rate (the proportion of women in the population aged 16 and over working or looking for work)[4] was 46.3 percent in 1975, more than 10 percentage points above the 1955 rate. By 1975, 37 million women were working or looking for work, and women accounted for almost 40 percent of the entire civilian labor force. The BLS expects the number of women in the labor force to increase to more than 45 million by 1985.

As the female commitment to the labor force continues its upward trend, the participation rates for men show a slow but steady decline. The male labor force participation rate for 1975 was 77.9, a decline of nearly 7½ percentage points from the rate in 1955. BLS anticipates very little change in this rate over the next 10 years.

The change for women represents a revolution in social values and presents a challenge to educators. Although the labor force participation of women in all age groups has risen, the largest increase has been in the rates of the 20-34 year old group. Many of these women, who in the past stopped working when they married or bore children are no longer doing so. Today about 45 percent of all wives are working or looking for work in this country. In addition, the number of female headed households has increased, and many of these family heads are in the labor force. In the United States today, the female commitment to the world of work is the strongest it has been for many decades. Many of these women need training—especially those who have been spending time at home to raise a family or those who have been in unrewarding careers because of job stereotyping when they first entered the labor force. Career aspirations of women are changing fast. Many more women now realize they can pursue careers in other than routine office work and retail sales jobs. Vocational education can help to equip them for more satisfying and financially rewarding positions.

Available evidence indicates that women have made some important strides in the job. The growth of women in professional-technical jobs between 1965 and 1975 increased by about 2 million, more than the increase of males in these jobs. However, the numerical growth of female employment over the 1965-75 period was largest in the traditional clerical and service jobs. Female clerical workers increased by nearly 4 million and service workers, except private household workers, increased by 2.3 million. At the same time, employment of male clerical workers changed very little and male service workers, excluding private household workers, increased by only 1.2 million. Significant percentage gains were made by women in craft jobs, but the numbers are small. (See Table 2.)

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[4]Data on labor force composition, employment and unemployment may be found in the BLS monthly bulletin *Employment and Earnings*.

Table 2
Employment by Major Occupational Group 1965-75, by Sex
(Numbers in thousands)

Occupation	Female				Male			
	1965	1975	Change 1965-75		1965	1975	Change 1965-75	
			No.	Percent			No.	Percent
Total all occupations	24,748	33,553	8,805	35.6	46,340	51,230	4,890	10.6
Professional and technical	3,276	5,267	1,991	60.8	5,596	7,481	1,885	33.7
Managers and administrators	1,110	1,729	619	55.8	6,230	7,162	932	15.0
Salesworkers	1,858	2,323	465	25.0	2,641	3,137	496	18.8
Clerical workers	7,862	11,773	3,911	49.8	3,279	3,355	76	2.3
Craft and kindred workers	269	501	232	86.3	8,947	10,472	1,525	17.0
Operatives	3,764	3,885	121	3.2	9,581	8,971	−610	−6.4
Nonfarm laborers	107	182	75	70.1	3,579	3,777	198	5.5
Service workers	5,742	7,258	1,516	26.4	3,194	4,400	1,206	37.8
Private household workers	1,916	1,141	−775	−40.5	40	30	−10	−25.0
Other service workers	3,826	6,116	2,290	59.9	3,154	4,370	1,216	38.6
Farm workers	758	460	−298	−39.3	3,295	2,476	−819	−24.9

Note: The data do not account for changes in occupational classification between 1965 and 1975 but the difference should not distort the conclusions to any significant effect.

Source: U.S. Bureau of Labor Statistics, *Employment and Earnings, January 1976* and *Employment and Earnings, December 1969.*

Women still account for almost 78 percent of all clerical workers, more than 62 percent of all service workers, 97 percent of all household workers, and close to 43 percent of all sales workers. They represent nearly one fifth of the managers and administrators and only 4.6 percent of craft workers.

The employment of women in the traditionally feminine occupations—many of which are at the low end of the pay scale—becomes even more obvious when we examine the sex breakdown of more detailed occupational classifications. Almost all secretaries are women, 86 percent of all file clerks are women, and women account for 85 percent of all elementary school teachers, 97 percent of all nurses and 81 percent of all librarians.[5]

Today, women are clearly a permanent and important part of the labor force. If they are to move out of the traditional occupations, efforts to prepare women for non-traditional, non-stereotyped occupations must be greatly increased. The continued enforcement of established guidelines aimed at eliminating sex role stereotyping in vocational education programs should open up a greater variety of programs to both women and men.

Programs must be established to provide women with information about training programs available to them for all occupations. Women need better information about where they may learn non-traditional occupations, and they must be told that they can learn to perform well in jobs previously reserved for men. Without proper information and guidance, the occupational choices that women have made over the decades are likely to continue.

The situation is even more critical for blacks, Spanish Americans, and other minorities, and in many respects the challenges in providing guidance and training to them will be even greater. These groups continue to lag behind the white majority in terms of formal education and skills. And, of course, this is reflected in their large concentrations in low-paying, dead-end jobs. In 1975, these groups, which represented only about one-tenth of all employed persons, accounted for one-fifth of the nonfarm laborers and service workers in this country. More specifically, blacks made up 59 percent of all the cleaners and servants, 31 percent of all garbage collectors, 45 percent of all clothing ironers and pressers, and nearly 26 percent of all nurses aids, orderlies, and attendants.[6] It is clear that even now we are faced with a challenge. That challenge will become even greater in the years to come because of the rapid population and labor force growth expected for this group.

The black population is growing faster than the whites and this is expected to continue into the future. This means that proportionately more of the young people reaching working age in the next decade will be black. The BLS projects that between 1975 and 1985, despite the waning of the baby boom, the black labor force in the 16 to 24 age group will rise faster than the comparable white labor force. This would suggest that special emphasis be placed on the future counseling of young blacks.

Furthermore, as the present black youth labor force grows older and enters the prime working years, it is projected to do so at a faster rate than for the comparable group of young whites. This development should also signal the need for more specialized information for black workers in mid-careers.

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[5]U.S. Bureau of Labor Statistics, *Employment and Earnings, January 1976.*

[6]U.S. Bureau of Labor Statistics, *Employment and Earnings, January 1976.*

Although the Spanish American population is smaller than the black population, the Spanish American group is somewhat younger than the black group. The median age of persons of Spanish origin in 1975 was just under 21 years compared to a median age of 23 for blacks. (The median age of whites was nearly 30 years.) This especially low median age of the Spanish has important implications for vocational education planning. With larger numbers of Mexican Americans, Puerto Ricans, and others entering the work force in this country in the coming years, the demands on vocational education programs tailored to meet the needs of these workers will undoubtedly increase.

Like blacks, the Spanish, too, have suffered discrimination. A continuing problem is that far too many of them enter the job market with inferior skills and substandard education. The results are clearly evident in their occupational profile. In 1975, persons of Spanish origin comprised a little more than 4 percent of all employed workers. At the same time, however, they accounted for about 7 percent of all unskilled and semi-skilled workers and 11 percent of all the farm laborers. Conversely, their representation in the better paying professional and managerial jobs was below their share of total employment.

It is clear, then, that the future will bring even greater demands on planners of vocational education programs in meeting the needs of the disadvantaged.

Projections of Future Occupational Employment Requirements

Along with shifts in vocational educational programs to accommodate population and labor force changes, consideration must be given to the types of occupational areas for which instruction is provided. Training efforts for all groups of the population will only be successful if the training is oriented toward future employer skill requirements.

Of course, no one can predict the future with certainty. However, we can set out some basic assumptions and then project past relationships forward into the future. To the extent that our assumptions are correct and that basic relationships do not change dramatically, projections of future employment and occupational requirements can be useful. Many factors can be foreseen, although the magnitude of their effect cannot be established with certainty. For example, the energy crisis has had its effect on the structure of our economy and no doubt will continue to do so over the next decade. But the future of many industries and, therefore, of job opportunities tied to energy cannot be predicted. Government policies change, and the changes could affect economic development and employment prospects.

Despite the wide variety of uncertainties about the future, the Bureau of Labor Statistics has been developing projections of future occupational needs for use in education planning and vocational guidance for over three decades. In this endeavor, we have been forced to make assumptions about a great many factors, and we do this as best we can. Sometimes we are right and other times wrong. Thus, I would like to make sure that you understand that the occupational projections that I will discuss today should not be taken as firm predictions of the future. However, the Bureau has been fairly successful in the past in identifying *major* trends in our occupational structure. Perhaps this is the best we can hope for, although we are constantly conducting research to improve our projections capabilities and to develop new data to use in our efforts.

The latest BLS projections to 1985 indicate that professional and technical personnel, managers and administrators, and clerical jobs will be fast growing occupations; the demand for salesworkers, craftsmen and kindred workers, operatives, nonfarm laborers, and service workers will grow moderately;

and agricultural occupations will decline. The most important imbalance between supply and demand is expected to be for college educated workers. In the next 10 years, we expect the supply of college graduates to increase at a faster rate than the jobs requiring a college education.

The BLS program includes long-range projections of the demand for various occupations in considerable detail. These BLS data are presented in traditional occupational categories, basically as people report their occupations in the decennial Census. Matching these categories to vocational education curricula is difficult and cannot be carried out with precision. Nevertheless, the BLS Occupational Outlook staff has attempted to line up these categories in summary form.

Employment in occupations classified by broad area of vocational education training varies widely. In 1974, about 2 million workers were employed in health occupations related to health vocational training programs, whereas the number employed in occupations related to trade and industry programs was about 37 million. (See Table 3.)

Table 3
Estimated 1974 Employment and Projected 1985 Employment Requirements by Broad Area of Vocational Education
(Numbers in thousands)

Training area	Estimated employment 1974	Projected 1985 requirements	Percent change 1974-85
Agriculture	4,249	4,117	–3.1
Distribution	12,014	13,965	16.2
Health	2,114	3,584	69.6
Office	13,566	18,267	34.6
Technical	763	1,080	41.6
Trades and industry	36,917	45,153	22.3

Source: Based on data to be published in *Revised BLS Occupational Projections to 1985, Monthly Labor Review,* November 1976. Data by occupation presented in traditional Census categories for 1974 and projected 1985 were related to six broad areas of vocational education training using the relationships established in *Vocational Education and Occupations*, U.S. Department of Health, Education, and Welfare and U.S. Department of Labor. In developing these relationships only occupations for which vocational education provide training were included. Therefore, physicians, dentists, engineers, and other occupations where workers obtain training in colleges and universities are excluded.

Between 1974 and 1985, the fastest rate of growth is projected for the relatively small category of health occupations—about 70 percent—as rapid growth is expected in a variety of technical and aide jobs. This rate of growth is about 3½ times the 20 percent rate of growth expected in total employment. Technical and office occupations are also expected to grow faster than the average for all occupations (by 42 percent and 35 percent, respectively). Rapid growth in the technical areas will be caused by growing needs for technicians to work along with scientists and engineers. Among office occupations, rapid growth is expected for secretaries, typists, and operators of computers and related equipment.

Occupations in the trade and industry area are expected to grow by 22 percent, about the average rate for all occupations, and in the distribution area a little slower than average, 16 percent. Agriculture is the only area for which no growth is expected. The inclusion of all farm workers in the occupational totals actually results in a small decline, as the total number of workers needed on farms is expected to continue the long-run decline.[7]

The BLS staff has also attempted to match the current output of vocational education training programs with projected job openings to provide additional information for use in vocational planning.[8] For example, Table 4 shows 7,949 dental assistants completed vocational education programs in FY 1974 in comparison to projected annual average openings of 14,500 over the 1974-85 period.

Table 4
Relationship Between Projected Average Annual Requirements 1974-85 and Vocational Education Completions, FY 1974, Selected Health Occupations

	Vocational education code	Projected average annual requirements 1974-85	Vocational education completed FY 1974
Dental assistants	07.0101	14,500	7,949
Dental hygienists	07.0102	6,300	1,699
Dental laboratory technicians	07.0103	2,600	1,211
Radiologic (x-ray technologists)	07.0501	8,600	2,413
Licensed practical nurses	07.0302	93,000	34,455
Nurses aids, orderlies, and attendants	07.0303	123,000	32,220
Occupational therapy assistants	07.0401	1,150	829
Physical therapy assistants and aides	07.0402	1,400	583

Source: U.S. Bureau of Labor Statistics, *Occupational Projections and Training Data,* Bulletin 1918 (in press).

[7] Data on detailed occupations (i.e., machine tool operators, photoengravers, boiler tenders, etc.) may be found in U.S. Bureau of Labor Statistics, *Occupational Projections and Training Data,* Bulletin 1918 (in press).

[8] U.S. Bureau of Labor Statistics, *Occupational Projections and Training Data,* Bulletin 1918 (in press).

In an effort to provide more data for those concerned with occupational information, the Bureau of Labor Statistics, in addition to its long-term economic growth and occupational outlook programs is developing an Occupational Employment Statistics (OES) program designed to provide a comprehensive body of information on local employment by detailed occupation. The BLS is also cooperating with the Employment and Training Administration and the state employment security agencies by providing methodological assistance to states wishing to develop information related to the state and its local labor markets. Through the OES program, data are being collected from employers that will provide occupational employment data for over 2,000 occupations. The survey is a federal-state cooperative program in which data are collected by states according to specifications provided by BLS. At the present time, only 35 states and the District of Columbia are part of the program because sufficient funds are not available to support program costs for all states. The potential value of the program is great, however, and several states have recently joined using their own funds.

Expansion of the OES survey, however, is still only one more step toward development of a comprehensive labor market information system useful for planning vocational training programs and for use in vocational guidance. Data gaps still exist about training provided by employers, training provided in private vocational schools, occupational mobility, and geographic mobility. Great strides are being made in these areas, but data developers are still far from having a complete information system.

There also is a need for closer working relationships between data developers and data users. Methods of using data often are not understood by data developers, and, as a result, data collection and analysis programs often are not adequate. If programs to collect and analyze data are developed without the direct input of primary users, the chances of wasted effort are very high.

Recent months have seen the birth of the Occupational Information Coordinating Committee, with representation from the Bureau of Labor Statistics, Employment and Training Administration, and Office of Education. This Committee established for the first time a joint effort of both users and developers of occupational information to improve data collection and analytical uses of data in education planning and vocational guidance. A coordinated approach is necessary if the comprehensive needs of vocational education planners, vocational counselors, women, minorities, and others are to be met in the future.

Conclusion

What does all this mean for the future? Vocational educators will have a great deal to do. Planners will have to re-evaluate present programs. Changes in population age group size and projections of the composition of the future labor force indicate the need for increased focus on the adult population, especially on those who have recently left the teen age group. Women workers, already a large group, will continue to increase. They will need extra help in planning their occupational goals. Employment is projected to increase fastest in those occupations where women have traditionally been employed. Therefore, if they are to succeed in breaking the current pattern of occupational segregation, women will need special help in acquiring the skills required to compete with men.

Even more than in the past, black and other minority workers will present a special challenge to vocational educators. Their numbers will continue to increase; their unemployment rates are higher than the rates for whites and their occupational status much lower. These people will need all the help they can get to upgrade their occupational sights and capabilities.

Vocational educators would also do well to consider how to provide viable vocational training to the college-bound students or the already college educated. The projected imbalance between the supply of college graduates and the demand for occupations that require a college degree suggests that many members of this group may need to acquire useable vocational skills.

Projected job requirements can be helpful for broad planning guidance, but it is extremely important that planners understand fully the assumptions on which the projections are based. Action is needed to develop closer working relationships between the data producers and the data users in this field. Effective planning requires adequate information. The educators who are the data users can, by working closely with the economics and statisticians who are the data producers help to improve the entire system of labor market information required for successful and realistic vocational education planning.

FUTURE POLITICAL IMPACT ON VOCATIONAL EDUCATION PLANNING

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The problems presented by the title of this paper relate to something that is intriguing to all of us and which does not yet exist: the future. Not, to be sure, the future of everything, only the future of vocational education as conditioned or determined by politics and government.

I intend to do at least two things in exploring this topic: (I) set out a series of propositions about politics and government that, if true, will affect vocational education and (II) look at the political implications of the important intellectual tasks of the planner or decision maker in the field of vocational education.

I. Some Relevant Propositions about the Political Future and Vocational Education

The great difficulties we experience in understanding the social and political process grow out of differences in our expectations and the difficulty or impossibility of introducing the same kind of practical certainty into the science of politics that we have in the science of physics. Men differ in their expectations and are unable to bring about a concensus on questions that must be resolved in the field of public policy. Likewise, men differ in their hopes, desires, aspirations, value systems. What is one man's meat is another man's poison. In the social, economic, political spheres we do not have problems that we can solve as we do problems in algebra or structural engineering; we have problems to be resolved and when we resolve them today in manner X, we create new situations and new problems, new differences that must be resolved tomorrow.

I must emphasize that in forecasting, foreseeing, estimating, conjecturing about the future of American politics and its impact on vocational education or educational planning, we are dealing with a very complex, intricate and subtle problem. If you want to study American politics, you can find endless writing by citizens, lawyers, lobbyists, columnists, editorial writers, journalists, historians, sociologists, pollsters, policial scientists, candidates and politicians. The libraries are filled with books; newspapers and magazines tell us all the latest gossip; TV and radio add their "on-the-scene accounts" of hearings, speeches, conventions. And, then, there are our own experiences, prejudices, and general incompetence (as my grandfather—a very wise man—used to say to me, "your problem is not that you don't know anything; your problem is that so much of what you know is wrong.") Finally, there is just plain *human* perversity and cussedness; men are not angels.

There are at least three things I might discuss in exploring the political future and vocational education. One would be the social and economic context, the context that establishes the problems and contrains their resolution. Another would be the future of the political system: systemic changes. I propose to do a little of each.

The Context

One of the central contextual facts of our times is the acceptance of governmental planning and the consequent shift in decision making from the private to the public arena. There is almost no area of public life in which this is more evident than in education. Vocational education is no exception and the creation of national and state advisory and planning commissions, coupled with their extensive funding exemplify this fact. In the past many decisions were made by individual families, small businesses, corporations, and private educational institutions. Resource allocations were made privately and in response to non-governmental pressures. Differentiation in resources at the level of primary, secondary, and post secondary education was very great and little or no thought was given to national needs or a national program. Fifty state programs did not make a national program. Today that is changed in very important ways. For the foreseeable future our national political processes will make or significantly influence the decisions. National decision makers are likely to insist upon planning at both the national and state level. This certainly can be one of our expectations. Further, it seems clear to me that four types of non-political institutions are going to be deeply involved: (1) the educational institutions at all levels, (2) national associations, including (a) the professional educational associations and (b) the academic disciplinary associations such as the one I am associated with; (3) the labor unions, businesses, and trade associations; and (4) the research institutes either independent or connected with universities. All these associations and organizations will be brought into the planning process.

In order to have some clearer understanding of both the problems and the political response, I read as much as I could of the Congressional hearings, Congressional discussion, and reports of organizations concerned with vocational education. I discovered a very extensive literature and a literature from which I believe it possible to formulate some conjectures about the contextual future.

There is no doubt that the high rate of unemployment has had great impact on thinking about vocational education and is a problem of central concern to the members of Congress, the President, the state legislators and governors. This is particularly true of unemployment for the young, the old, women, the physically handicapped, disadvantaged minorities and workers whose jobs are becoming obsolete. For young people, we know that the rate of unemployment is regularly more than twice the rate of unemployment for the population at large. Their problems are complicated by their lack of work experience. Their careers are ahead of them and they have little opportunity to experiment or to try out or to learn about various career fields. They do not have an adequate opportunity to find themselves, to find out who they are and what they can do. These problems will not go away. They will be with us even more in the future. The reduction of the voting age to 18, combined with the protest movements of recent years, have focused considerable political attention on the young.

For older people, the problems are different. Their unemployment rate is less—about half that of the population at large. Many are retired. Retirement for some is voluntary but for many is compulsory. Further, the number of older people is growing; they live longer and their physical and mental health is better; many cannot be classified as old, only as upper middle aged; they do not have as great family and community demands upon them as the young and they often feel isolated, unneeded, unwanted.[1]

Women: The number is greater than either the young or the old. They are to be found along with men in both of these groups and, in addition, are at least half of the group in between. Further, though they have been and are badly discriminated against they are entering the labor market in ever increasing numbers. In the past six months well over a million women over 16 have taken jobs and most are in the 25 - 44 age group. During the last two years, the number of women in the work force has increased by almost three million. Women comprised 33% of the national labor force in 1960,

38.1% in 1970 and today about 40.7% even though forecasters in the Labor Department only three years ago thought this figure (40.7%) would not be reached until 1985. Almost 48% of American women over 16 now work or want a job. Eli Ginzberg, Chairman of the National Commission on Manpower Policy and economist at Columbia University says that the flood of women into the labor force is "the single most outstanding phenomena of our century."[2]

Disadvantaged minorities, including the physically handicapped, create still different problems. While among whites, 34.3% of those 18 or 19 have had only three years of high school or less, 52.5% of blacks fall in that category. Among those of Spanish origin in the same age group, 61.3% have had three years of high school or less; of Mexican origin, the figure is 62.4%. Further, the background of both young and old people in these groups requires a greater remedial effort to make further education effective. We have made only a beginning in solving problems in this area.[3]

Finally, there will be great increases in the number of people entering the labor market between now and 1986, greater than ever before in our history. That fact coupled with a much faster entry of women into the labor market than anyone forecast and the inability of either major party to solve the unemployment problem constitute a context that almost certainly will create future political support for vocational education.

This, to be sure, is a quite inadequate projection of the future context; it is not my main topic, however, and it serves to indicate the character of contextual pressures upon both planners and politicians that needs to be carefully developed.

Within the contextual future, we need to ask what immediate political events will be important. I do not propose to examine these in any detail. I do believe it worthwhile, however, to see what seems likely as of today.

1. The presidential race in 1976 is going to be much closer than many people initially thought; close enough that, at this stage, predicting a winner would be risky. Carter seems to be ahead, but Ford has been steadily cutting his lead.

2. Whether Carter or Ford is elected, the impact on vocational education programs will not be great. Election of Ford may result in a somewhat tighter budget control, a somewhat greater pressure for decentralization.

3. The composition of Congress will not change much as a result of the 1976 elections; Democrats will control both houses of Congress. A Republican gain of ten to a dozen seats in the House seems possible but this leaves a heavy Democratic majority. There seems to be no likelihood of a change of more than one or two seats either way in the Senate.

4. The majority of the governorships will remain Democratic though it appears likely that the Republicans will make some small gains.

5. The voters—in the polls—describe themselves as conservatives by a margin of about two to one. This conservatism is more a conservatism on social issues than on economic issues. Voters still believe in education and support education programs except where it involves raising local taxes or where busing has become a disruptive force.

6. There is considerable cynicism about government but this does not seem likely to have adverse consequences for vocational education programs. It does, however, contribute to a general belief that decentralization—getting programs out of Washington—is a good thing. There is desire to keep control of education at the state and local level even through a considerable part of the money comes from the national government.

7. Pressure from women, blacks, Spanish, Mexican-Americans and the physically handicapped will continue to be politically effective. Political leaders will be looking for programs designed to aid these groups. The impact of demands from women is clearly shown in the 1976 legislation.

8. Pressures from the young will persist but will not be as effective as from the above groups or as pressure from those over 60 and the unemployed. The size of the population in the upper age brackets is increasing and the economic pressures of inflation have a particularly adverse effect on this group. We can expect increasingly effective lobbying from the older age group and, therefore, increasing concern on the part of elective officers of the government. Pressure from the unemployed depends on the rate of unemployment: at the moment, neither the Republication President nor the Democratic Congress have been able to reduce it.

The general character of the political system in the future is of much greater importance than short range events such as the election of the President and Congress. Predictions or conjectures about this are more difficult and more likely to be wrong. Nonetheless, there are important things to be said.

Serious students of American politics believe that significant things are happening that may be changing the character of the American political system.[4] To quote Huntington:

> "The 1960's witnessed a dramatic upsurge of democratic fervor in America. The predominant trends of that decade involved challenges to the authority of established political, social and economic institutions, increased popular participation in and control over those institutions, a reaction against the concentration of power in the executive branch of the federal government and in favor of the reassertion of the power of Congress and of state and local government, renewed commitment to the idea of equality on the part of intellectuals and other elites, the emergence of 'public interest' lobbying groups, increased concern for the rights of (and provision of opportunities for) minorities and women, and a pervasive criticism of those who possessed or were even thought to possess excessive power or wealth. The spirit of protest, the spirit of equality, and the impulse to expose and correct inequities were abroad in the land."[5]

As a consequence a number of changes in the character of the system appear to be taking place.[6] These include:

1. Popular support and governmental support for domestic programs, for programs designed to insure greater equality, have grown markedly. In 1960 all governmental expenditures equaled about 27% of the gross national product, defense expenditures 9%, non-defense expenditures, 18%. In 1974, all government expenditures were approximately 33%, defense expenditures 6%, non-defense expenditures 27%.

Or, to take a look on another basis: total expenditures were 151.3 billion dollars in 1960; 397.4 billion in 1972. Of this, expenditures for defense and international programs were 47.5 billion in 1960; 79.3 billion in 1972. For education, the figures were 19.4 billion in 1960; 70 billion in 1972. For public welfare, 4.5 billion in 1960; 23.6 billion in 1972. For health and hospitals, 5.2 billion in 1960; 17 billion in 1972.

There is some evidence today in the polls that this shift has elicited increased resistance. In 1972 liberals and conservatives were equally agreed that government is too big. In the 1976 campaign, both presidential candidates are attacking big government, Washington, and government bureaucracy. Further, while government deficits seem to have become a way of life in the last years with a huge cumulative deficit, even the Democratic candidate is promising a balanced budget.

2. There has been a decline in authority of and public confidence and trust in most of the institutions of society: the church, unions, business, the family and most certainly government: the Presidency, Congress, the courts, the parties. While demands on government for social and welfare programs have been growing, public confidence has been declining.

3. The electorate has become increasingly polarized and increasingly ideological. This is due partly to the extreme differences about the war in Vietnam but also due to strong differences on racial issues, busing, the role of women, crime, abortion, drugs, civil liberties. Since government seemed to those most concerned to be unable to deal effectively with these problems, the distrust and cynicism further increased. Huntington suggests that this development—growing out of the democratic upsurge of the 1960's—could "well be generating its own countervailing force."[7]

4. The parties are in a state of decay and decline in importance. Party identification has gone down sharply. The number of persons considering themselves as independents has greatly increased. Party ticket splitting has been rising significantly. It has come to seem quite normal to have a Republican President and a Democratic Congress. Candidates, as a result, often seek to downplay their party affiliation and sell themselves as personalities or as having particular skills. The primary system has contributed to this. Carter in 1976 in the presidential primaries was running against the party establishment and his campaign was more on personality than on issues. This has continued in the election campaign where emphasis is on personality and very few leading political figures of the past are deeply involved in the campaign. The reforms of political financing have further broken the hold of parties and decreased their importance in the political process. Any candidate who wins the presidential nomination receives public financing; he does not need the party.

   In 1950 about 80% cast straight party ballots; in 1970, 50% did. Voters vote the man, not the party. This trend was heightened by the issue oriented, more ideological candidacies of Goldwater, McCarthy, Wallace and McGovern.

5. The Presidency has declined in authority, power, status, respect; especially in contrast with the Congress and the national media. Congress and the courts have both imposed legislative restrictions; the War Powers Act and budgetary reform are examples. The President, whether Democrat or Republican, represents established authority that is always fair game and open hunting season for the press. The presidency, once the object of the intellectual's praise, is now the object of their scorn. The impact of this weakened position is apt to be felt for many years to come.

6. State and local governments have enhanced their position in comparison with all national institutions. In 1973, a national sample showed a decline in confidence in the federal government of 57%, compared with 26% for state government and 30% for local. Those in favor of increased power for the states was 59%, for increased power at the local level 61%; but only 32% wanted to increase the power of the federal government. Education has felt particularly hampered by federal regulations and federal laws.

7. The electorate is split into a variety of factions as individuals and groups seek support for their special interests. Each seeks its own ends but has little concern for those of others; few are willing to impose sacrifices on themselves. Sacrifices and delayed gratification are for others. People identify more with issues than with party. The adverse impact of this is probably greatest in the field of defense and foreign affairs but its impact is certain to be felt by some domestic programs as well.

Vocational education planners need to be aware of the type of developments just outlined. The future impact of politics on vocational education is certain to be more important in these matters than in who wins or loses the presidential and congressional races, or who wins or loses governorships and state legislative seats. Some present trends present threats to the stability and even to the continued existence of our basic democratic institutions. We need to continually evaluate the emerging future. What is happening? What trends do we see? Is there increasing polarization? greater ideological differences? more distrust of political leaders? a decline in the role of the President? a rise in the power of organized groups seeking personal benefits? a decay of the party system? a new role of the media? an increasing inability of political leaders to compromise? a greater inability of government to govern? a decline in the prospects for democracy?

II. Relations Between the Political Future and the Five Important Intellectual Tasks of the Planner for Vocational Education

Planning for vocational education, or for any future state of affairs, is to engage in the decision process, to become a policy scientist, to be a problem solver. Effective problem solving involves five intellectual tasks: goal clarification and justification, trend description; analysis of conditions; projection of developments; and invention, evaluation and selection of alternatives.[8]

We can use these categories, involving both content and procedure, to look at our problem. As an index of content they will serve to remind us of questions worth raising. As a basis for proceeding, they guide us through the various tasks in an orderly fashion. They also serve as an agenda for allowing the relevant context to emerge and come into the focus of attention. This is important since, as noted above, contextuality is an inescapable necessity. Realistic and selective awareness of contextuality is indispensable to our task.

Goal Classification and Justification

What do we want? What ought we prefer? Either one faces these questions directly or one accepts the answers of the past or of those institutions and media that one is exposed to. In our society, especially in education, the overriding aim should be a commitment to human dignity. The decisions we make should provide equal opportunity for participation, equal chance to develop individual capabilities. The limiting factor must be the capacity of the individual. We want to realize and maintain a society in which the goal of human worth and dignity is optimally realized. These

general statements, in turn, must be reduced from a high level of abstraction to specific commitment, relating (to use Lasswell's basic value categories) to well-being, affection, respect, power, wealth, enlightenment, skill and rectitude.

Goal clarification and justification in the field of vocational education is complicated by the fact that Americans have believed and do believe that education is the solution to almost any problem they confront. This view has acquired the fixity of a popular prejudice. Education is expected to fight disease and poor health; reduce auto accidents by teaching students to drive well; combat ignorance and increase literacy; resolve racial conflict; provide recreation and entertainment; fight alcoholism and drug abuse; keep children off the streets and out of crime; produce professional men; develop technicians; reduce conflict; make all of us more effective consumers and home makers; combat unemployment; reduce poverty by training the poor for jobs; make possible an active role in society for the physically handicapped. Thus education relates to a wide variety of interests and stimulates important interest groups to take an active role in development of educational policy.

While vocational education cannot be expected to achieve all the above goals, almost all of them are thought to be the province of vocational education by one or another interest group. To look at programs the Congress has already provided for in the sphere of vocational education is to confirm this fact.[9]

Thus, the federal government and, in turn, the state governments provide a wide range of programs. It is important that these fulfill well established and agreed upon value commitments of the American people. They also should contribute to the goal of human dignity by providing opportunities for training in accord with ability that will enhance opportunities for a satisfying work experience. They should contribute to the maintenance of personal integrity and assure that the structures of public power can serve the common interest. They do not always do so; it is important, therefore, to have continuous evaluation of programs by comparing their results with established objectives and commitments. This was clearly seen by John Dewey when vocational education supported by federal funds was just beginning. Writing in 1916, Dewey said in his *Democracy and Education*:[10]

> "A vocation signifies any form of continuous activity which renders service to others and engages personal powers in behalf of the accomplishment of results. The question of the relation of vocation to education brings to a focus the various problems previously discussed regarding the connection of thought with bodily activity; of individual conscious development with associated life; of theoretical culture with practical behavior having definite results; of making a livelihood with the worthy enjoyment of leisure. In general, the opposition to recognition of the vocational phases of life in education (except for the utilitarian three R's in elementary schooling) accompanies the conservation of aristocratic ideals of the past. But, at the present juncture, there is a movement in behalf of something called vocational training which, if carried into effect, would harden these ideas into a form adapted to the existing industrial regime. This movement would continue the traditional liberal or cultural education for the few economically able to enjoy it, and would give to the masses a narrow technical trade education for specialized callings, carried on under the control of others. This scheme denotes, of course, simply a perpetuation of the older social division, with its counterpart intellectual and moral dualisms. But it means its continuation under conditions where it has much less justification for existence."

Evidence of our value commitments is to be found, for example, in the platforms of the major political parties. In 1964, the Democratic Party Platform on Education, written by Daniel Patrick Moyniham, now Democratic candidate in New York for the U.S. Senate, included the following statement:

"Our task is to make the national purpose serve the human purpose: that every person shall have the opportunity to become all that he or she is capable of becoming.

"We believe that knowledge is essential to individual freedom and to the conduct of a free society. We believe education is the surest and most profitable investment a nation can make.

"Regardless of family financial status, therefore, education should be open to every boy and girl in America up to the highest level which he or she is able to master."[11]

The same commitment has been made by both parties and candidates each presidential election year. In 1968, the Democratic Platform provided:

"Education is the chief instrument for making good the American promise. It is indispensable to every man's choice to achieve his full potential. We will seek to open education to all Americans . . . Every citizen has a basic right to as much education as he desires and can master—from preschool through graduate studies—even if his family cannot pay for this education. We will marshall our national resources to help provide . . . a vocational system that will provide imaginative new ties between school and the world of work, and improved and more widespread adult educational programs."[12]

The Republican Platform in 1968, provided:

"The birthplace of American opportunity has been in the class rooms of our schools and colleges. From early childhood through the college years, American schools must offer programs of education sufficiently flexible to meet the needs of all Americans—the advantaged, the average, the disadvantaged, and the handicapped alike . . . Greater vocational education in high schools and post college years is required for a new technological and service-oriented economy . . ."[13]

This year (1976) the Democratic Platform provides:

"The goal of our educational policy is to provide our citizens with the knowledge and skills to live successfully . . . We should also work to expand federal support for . . . education of the handicapped, bilingual education and vocational education . . . We recognize the right of all citizens to education . . . The principle that a child's education should depend on the property wealth of his or her school jurisdiction has been discredited in the last few years . . . The Party commits itself to the support of adult education and training which will provide skills upgrading."[14]

The Republican Platform says:

"Our children deserve quality education . . . We are deeply concerned about the decline in the performance of our schools and the decline in the public confidence in them . . . We favor continued special federal support for vocational education."[15]

Trends

Once goals are established—not only in general but also in specific terms, the question naturally arises: to what extent have past events approximated the preferred goals? Have we been moving

toward or away from the future states we wish to realize? What discrepancies are there between desired outcomes and the actual situation? We are continually moving from the past, through the present, into the future. We need to ask: where are we? How far have we come? What have been our successes, our failures? We are not limited to the recent past in our analysis; we may find similarities between our present and a more distant past that we subject to critical examination.

What can we say about trends in vocational education and what about our institutional capacity for bringing together the needed data?

From the very beginning of our history, the trend has been in the direction of increased opportunity and increased funding for education. The trend has continuously been in the direction of realizing goals we have already discussed.

Even before the establishment of our present constitutional system, the Continental Congress had approved in 1785 an ordinance providing that "there shall be reserved the lot No. 16 of every township for the maintenance of public schools within the said township." Further, the ordinance of 1787 (the Northwest Ordinance) setting up the Northwest territories (now states of Ohio, Indiana, Illinois, Michigan, Wisconsin and part of Minnesota) provided that "Religion, morality, and knowledge, being necessary to good government and the happiness of mankind, schools and means of education shall be forever encouraged."[16]

While the Northwest Ordinance contained no provision for land grants for education, it did encourage the provision of means for education and the federal government chose to do this by land grants which became national policy in 1802. In that year the Enabling Act for Ohio became the first Act of Congress to establish a national policy of land grants for education. At the same time there continued to be various plans for a national system of education, and on December 7, 1875, President Grant urged a Constitutional Amendment that would make it a duty of the states to establish free, universal education "irrespective of sex, color, birthplace, or religion." The Amendment did not pass the Congress but was indicative of the continued concern of political leaders.

Since then there have been a wide range of Congressional actions: the Lanham Act (1941); the impact laws (1950); the school lunch program (1946); Library Services and Construction Act (1956); National Defense Education Act (1958); Economic Opportunity Act (1964); Civil Rights Act of 1964; Elementary and Secondary Education Act (1965) and subsequent additions and amendments, for example, Title VI, Education of Handicapped Children (1966); Environmental Education Act (1970); Drug Abuse Education Act (1970); Emergency School Aid Act (1972) to take a few examples.

Popular, congressional, and presidential belief in education also has extended specifically to vocational education. For example, the Smith-Lever Act (1914) to aid in dissemination of useful and practical information about agriculture and home economics; the Smith Hughes Act (1917) for promotion of vocational education; the George Reed Act of 1929; the George-Dean Act (1936); the George-Borden Act (1946) also known as the Vocational Education Act of 1946; Title VII of the National Defense Education Act (1958); Cooper Catcham Act (1928); Bankhead Jones Act (1935); Bankhead Jones Act (1945); Public Health Service Act (1963); Vocational Education Act (1963); Manpower Development and Training Act (1962); Area Redevelopment Act (1961); Economic Opportunity Act (1964); National Vocational Student Loan Insurance (1965); Vocational Education Amendments (1968); Comprehensive Employment and Training Act (1973); Smith-Sears and the Vocational Rehabilitation Act (1918); and the Vocational Rehabilitation Act 1943); Education of the Handicapped Act (1971); Title II, Education Amendments of 1976.[17]

If one looks at enrollments and expenditures, the growth of vocational education is still more impressive. "From 1918 to 1974 the vocational education enrollment has grown from 164,168 to over 13.5 million persons. In 1918 the Federal government contributed 800 thousand dollars to vocational education while state and local sources contributed 2.2 million dollars. In 1974 the Federal contribution was $468 million and the state and local contribution, $2,965,000,000, an overmatch of 6.33 state and local for each Federal dollar." 47.2% of secondary school students were taking vocational education programs in 1974; over 6.7 million students were involved. It is expected that this will grow to 70% or over 9.5 million students by 1979. In 1974 this was supported by 3.4 billion dollars from federal, state and local sources.[18]

Lest you be seduced into believing that all is well because of the favorable trends throughout our history and the exceptionally important advances since the Smith-Hughes Act of 1918, let me call your attention to a column in *The Washington Post* (of September 29, 1976). The column, by Nicholas von Hoffman, is headed "Controlling the Education System by 'Moneyed Persuasion' " and ends on the following note:

> Since 1972 and the onset of our present economic problems, national education policy has been moving in new directions. "No more hysterical cries for more engineers and physicists. Now the money and the persuasion is going into vocational education, into guiding young people into service, craft and low-level technical occupations for which, we're now told, there will be an abiding need. People are running around giving talks saying college isn't what it's cracked up to be, and that, contrary to everything Americans have been told for generations, a B.A. doesn't guarantee its possessor a better job and a higher income.
>
> "Again, within a relatively short space of time, we have a new national educational policy. Since we're no more able to predict the labor market in 1976 than we were in 1956 when we were producing unnecessary engineers, the policy is a highly questionable one. Its quick and wide acceptance, however, serves to show how little policy control local school boards continue to have. Their job is to front for decisions made elsewhere to try to squeeze out more revenue, and also to convince the taxpayers that those debates about the colors of the high school band uniforms are what is meant by community-controlled education."

The problem is that while valuable accounts of the history of vocational education have been written, there is no very effective presentation of the trend data through out history. This data should be charted, combining state and federal legislative action with data about authorizations, appropriations, utilization, evaluations. The story is an impressive one and is provided in part by publications of the Division of Vocational and Technical Education of HEW[19] and by reports of the National Advisory Council on Vocational Education. If vocational education is to prosper, more effective preparation and publication of trend data and their relation to our values is needed. In many areas needed data is simply not available. There is need for adequately financed research and data gathering programs; this should cover both secondary and post secondary programs as well as data and evaluation in terms of employment results.

Conditions

What factors conditioned the direction and magnitude of the trends? Analysis of this question depends on scientific patterns of thought, the problems dealt with in this category are ones that enable us to say "If you want X, do Y." "If you want to reduce unemployment, provide adequate vocational education." "If you want to absorb the very large number of people entering the labor force 1976-1985, provide adequate vocational training."

The fact is that we do not know much about propositions of this kind. We do know something about trends in the size of the labor force; about new entrants; and the like, but we know too little about how to absorb them or what the consequences will be of particular actions. Here we require a combination of economics, sociology, political science and none of these disciplines are very fully developed scientific enterprises. Our knowledge is meager.

To a very large extent, congressmen, executives, state legislators take on faith the proposition that education, including vocational education, will solve or contribute to the solution of unemployment, the problems of the poor, the disadvantaged, women, the retired, the young. We are in great need of evaluation studies that will tell us more about the consequences of specific programs. We cannot invest money wisely until we know a great deal more than we now do. To adequately prepare for the political future, research in this field is a high priority.

Projection

Scientific analysis—understanding conditions—is looking backward; scientific analysis is based on the past. But policy looks to the future. Decision makers, planners want to make our expectations about the future more precise, more reliable. Projections are made on the basis of our knowledge of past trends and conditions and are made on the assumption that no individual or organization will intervene. This enables the decision maker or planner to determine whether intervention in the on-going process is needed if the future is to satisfy our objectives, our values.

Our decisions and plans depend to a very considerable extent on our expectations about the future. These expectations need to be subjected to discipline. We need to make provisional extrapolations; we then evaluate these in terms of our goals and objectives and in the light of current scientific knowledge of the factors influencing outcomes.

It will be useful to all of us, therefore, to remind ourselves of some salient characteristics of the future and how its nature differs from that of the past. Doing so will help us keep in mind how little we know about the future and how cautious we must be not to confuse our desire for certainty with certainty of our knowledge.[20]

There is a formidable difference between the past and the future as perceived by the mind. The past is over; we cannot change it. It is in the domain of *facts* even though it may be hard to determine them and even though different men may interpret them differently. That the past is over makes it the locus of regret and remorse. "I did wrong in the past, I regret it but I will do better in the future." But when I say "I will do better in the future," my statement is no longer about fact. It is no longer recorded, attested to, verifiable, confirmable. It does not correspond to any historical reality. Yet, if I have the will and the capacity, I may bring about a *future* state of affairs that corresponds with my statement. My statement is a statement both of possibility and of project. The future is a field of opportunity, of freedom, of power. In fact, the future is the only field of power; the only field of opportunity, the only field of freedom. I can conceive what does not now exist and hopefully I have some powers to bring about my conception. The future, therefore, is the locus of hope, of aspiration, of desire. We have knowledge of the past, but knowledge of the future is a contradiction in terms. This does not prevent a good many of us from consulting fortune tellers and astrologers; there are a good many of them in both politics and the social sciences.

So, we have no knowledge of the future. About future states we have guesses, estimates, forecasts, conjectures. We use the past as the "raw material out of which the mind makes estimates." We need foresight, we are curious about the future because it is there that we will lead our lives, realize or fail to achieve our hopes, desires, aspirations; our demands upon ourselves, our fellows, and our institutions.

But we must remember that it is stability and routines that make foresight possible. It should not surprise us that a familiar and stable social order has always been regarded as desirable and that its preservation has always been deemed essential. One of the great problems of our times has been the rapidity of change and the consequent difficulty in foreseeing how our fellows will behave either individually or in their institutional settings. This is not to argue that change and adaptability is undesirable but to argue that we cannot control and direct that change if surrounded by instability, disorder, or chaos. The fewer changes we anticipate the greater the reliability of our foresight, our reading of the future.

We have great need for adequate projections; for what Lasswell has called "developmental constructs" that will aid our understanding of the relation of the past to the emerging future. It "is a technique at once adapted to the conjuncture of events, and to giving full weight to the axis of time . . . The essential purpose is to enable the policy analyst, and hopefully the decision maker, to find his way in the complexities of the total situation in which he operates . . . the construct is tentative and exploratory, not dogmatic. Words that refer to future events are inferences from the existing supply of scientific and historical knowledge, and of provisional projections. They are not, however, science. They do not conjoin theory and data, since data are not available about the future. The data are predicted, not summarized."[21]

The object is to provide a focus for our attention, a focus that ties together the past, present and future. The further purpose is that it may enable us to initiate acts that prevent a projection or forecast from coming true. The problem solver, the decision maker is expected to invent or create the future, not to passively stand by and let it happen.

I see too little effective projection in the vocational education literature; nor do I see very adequate formulation or invention of alternative futures. And this brings us to the next intellectual task.

Alternatives

What intermediate objectives and strategies will best help us achieve our preferred goals? We must be able, in the light of our goals, our knowledge of trends, of conditions, of projections; our developmental constructs to invent strategies of intervention in the ongoing process that will lead to successful outcomes. We need to ask: What is the problem at hand? What outcomes are most adequate to the results sought? Who decides? What dispositions are favorable, unfavorable? What are the various alternatives we ought to consider?

Policy looks to the future. The future, like the past, is contextual. What is needed are various maps of the possible futures. These, in turn, must be evaluated in the light of goals, trends, conditions, projections. This is the nexus of problem solving and of planning. Many interwoven patterns are involved: the invention of policy proposals, a comparative evaluation in terms of short—and long—term benefits, costs and risks; the making of final commitment.

It is important to recognize that, while the above scheme is a valuable tool, the pattern of change in public policy is incremental. Incrementalism, a theory most fully developed by Charles E. Lindblom, may be defined as:

> ". . .decision making through small or incremental moves on particular problems rather than through a comprehensive reform program. It is also endless; it takes the form of an indefinite sequence of policy moves. Moreover, it is exploratory in that the goals of policy making continue to change as new experience with policy throws new light on what is possible and desirable. In this sense, it is also better described as moving away from known social ills rather than moving toward a known and relatively stable goal."[22]

There is no fundamental conflict between the Lasswell schema and Lindblom's incrementalism. Lasswell's five intellectual tasks are important ones; they give us guidance in formulating the incremental changes. No policy decision is ever based on complete clarification of goals, development of trends, examination of conditions, projections and formulation of alternatives. But every decision is based on some aspects of each. Policy decisions do not solve problems; they resolve them. Tomorrow, new variations of these problems again must be resolved.

Reviewing the literature of vocational education, first, there is some exploration of all the categories above, but I do not find them organized to make a major political impact. I find a plurality of goals, some related to basic values but most simply instrumental to a given end. Vocational education, for example, is seen as an instrument for reducing unemployment, not as an instrument providing an opportunity to realize the potential of persons unemployed or employed. Now, I do not argue that it should not do both; what I do argue is that there is too little exploration and statement of basic values, of how programs are related to these as well as to intermediate objectives we hope to accomplish. There is little effort to establish priorities. In the long run, this failure will have an unfortunate political impact. I say this because vocational education is likely to be justified on the basis of objectives that cannot be realized, at least by vocational education alone.

Second, there is need for a better, more effective presentation of trends throughout our history, for the relation of these trends to our basic values. Here I expect there has been unfortunate dichotomy created between vocational education and liberal or academic education.

Third, we have little scientific knowledge that is either properly presented or convincing. There has been too little effective evaluation research that might provide scientific insights. We simply do not know very much.

Fourth, I find very little effort at projection, at least projection that collects and combines data into meaningful propositions about the future of vocational education. What about unemployment? What will the figures be? Will we, as some people believe, cut the figure back to half the present amount in the next five years? What will the impact be on vocational education? If adopted, what will the effect be of income maintenance legislation? What will be the impact of the great numbers entering the labor force in the next ten years? How will present programs relate to projected needs?

Finally, I find almost no effort at the invention of alternative futures. We need alternative futures based on projections of different rates of unemployment, the impact of demands by women, blacks, handicapped and others who have political clout. Who has adequately explored the need for combining better civic education, better liberal academic education (I do not like the term academic education, but I keep finding it in the literature) with vocational education and training? Who has explored the need for and character of liberal education programs to supplement vocational education? Isn't there today an unjustified bifurcation of these two? The student in the elementary and secondary school who is college bound needs vocational education and work experience as much as the non-college bound needs liberal education. The 1968 report of the National Advisory Council on Vocational Education sees this problem clearly and explicitly declares that any dichotomy between academic and vocational education is outmoded.

How does all this add up? What will future politics bring? I believe the vocational education planner has a marvelous horizon of opportunities. Vocational education meets an important need, fulfills a justifiable goal. It needs to be developed and clarified; the job is there to be done. It will involve important attention to the needs of the young, women, blacks, chicanos, handicapped, elderly, and the ordinary employed individual who needs and desires retraining and upgrading. It will involve relating—in a more effective way—liberal and vocational education.

The politicians, political leaders will be responsive. The goals are ones both parties value. There is need for imagination in getting the programs out of Washington and establishing them on the local level. There is need for greater citizen participation. There is need for better trend data, for better evaluation, for effective descriptions of alternative futures, for more imaginative presentation of programs. Given these, the future of education, and vocational education, is bright indeed. I can do no better in closing than to quote an old friend, now Senator from Minnesota and candidate for Vice President:

> "Our society and culture experience continual change now, change beyond our ability to project. But one thing is clear: We cannot expect an education concluded at age 18 or 21 to be still adequate at age 50. This fact, coupled with the entrance of women to the work force in greater numbers, underscores the need for extensive retraining and conversion of facilities to make them adequate to the needs of adult Americans.
>
> "As these social trends propel us toward a national policy of lifelong learning, so too do pragmatic considerations. Between 1970 and 2000 the number of persons over 20 will have increased from 127 million to 190 million. With the declining birth rates and the extension of life expectancy there will be more adult Americans who want and need to live productive lives for longer periods of time than ever before . . .
>
> "Now we are looking beyond the children, to a new interpretation of Jefferson's dreams. But as we approach the twenty-first century, we are faced with a civilization more complex than he could have imagined. We must continue to cultivate our heritage as a great democracy and preserver of freedom. One important way we can do that is by revitalizing the educational enterprise to make it relevant to all citizens throughout their lives. It is a noble aspiration, and one that is finally within our reach. Let's make the most of it."[23]

FOOTNOTES

1. See *Never Too Old to Learn* (New York: Academy for Educational Development, 1974).

2. *New York Times*, September 12, 1976.

3. *Chronicle of Higher Education*, September 13, 1976.

4. See, for example, Michel Crozier, Samuel P. Huntington and Joji Watanuki, *The Crisis of Democracy* (New York: New York University Press, 1975), particularly the essay by Huntington on the United States, pp. 59-118 and the concluding chapter, pp. 157-171. Huntington's essay is printed in an abbreviated form in *The Public Interest*, No. 41 (Fall, 1975), pp. 9-38. Other essays in the Fall 1975 issue of *The Public Interest* are by distinguished students of politics and are indispensable reading if one is concerned about the future of American politics. There are, to be sure, a number of other books and articles worth examining. Many of these are cited in the above volumes. See particularly pp. 115-118 of *The Crisis of Democracy*. I suggest in addition Jeane Kirkpatrick's *The New Presidential Elite* (New York: The Russell Sage Foundation and The Twentieth Century Fund, 1976); Richard Rose, *Managing Presidential Objectives* (New York: The Free Press, 1976, and Jeffrey Pressman and Aaron Wildavsky, *Implementation* (Berkeley: University of California Press, 1973).

5. Huntington in *The Public Interest, op. cit.*, p. 9.

6. The items below follow the structure of Huntington's argument.

7. Huntington in *The Public Interest, op. cit.*, p. 19.

8. The above descriptive terms are those of Harols Lasswell, *A Pre-view of Policy Sciences* (New York: Elsevier 1971). See Ch. 3. They also are to be found in other works of Lasswell.

9. For example: vocational programs for persons of all ages in all communities who desire and need education and training for career vocations; conducting programs in consumer and home making education; programs to prepare students for employment through cooperative work study arrangements; develop curricula for new and changing occupations and disseminate existing curricula materials; research training and experimental developmental or pilot programs to meet special vocational needs of youth; provide programs for persons who have academic, socio-economic, or other social handicaps that prevent their success in regular vocational education programs; provide advice to state governments in the development of state plans; evaluation of programs, services and activities; assist economically disadvantaged full time vocational education students ages 15-20, to remain in school by providing part time employment with public employers; develop, establish and operate vocational education programs as models; special emphasis to youths who have socio-economic or other handicaps; financial aid to experienced vocational educators for up to three years graduate study in leadership development programs and institutional awards for development and improvement of programs to continue the supply of such people; strengthen education programs authorized by vocational education amendments of 1968 and improve instruction and administration of vocational education at all levels.

10. New York: The Macmillan Co., 1916; reprinted by the Free Press in 1966, p. 319.

11. Quoted in Moynihan's "The Politics of Higher Education," *Daedalus*, Winter, 1975, p. 134. See also *Federal Educational Policies, Programs and Proposals* (90th Congress, 2nd Session, House Doc. No. 398, p. 117. Prepared by Charles Quattlebaum.

12. Reprinted in *Federal Education Policies, Programs and Proposals, op. cit.*, p. 166.

13. *Ibid.*, pp. 166-167.

14. National Democratic Platform, 1976.

15. Republican Platform, 1976, pp. 21-22.

16. See Americo D. Lupati, *Education and the Federal Government* (New York: Mason/Charter Publishers, 1975), Ch. 2. This book provides an excellent history of the Federal Government and education. Also, see *The Federal Role in Post Secondary Education: Unfinished Business 1975-1980* (San Francisco: Jossey-Bass Publishers, 1975), Ch. 4, "Federal Support of Vocational Education," pp. 55-61.

17. The 1976 legislation provides:

    "Six categorical programs in vocational education would be combined into a single block grant to the states and extended through fiscal 1982. The bill would consolidate the Basic Grant, Work Study, Cooperative Education, Residential Schools, Curriculum Development, and Leadership Awards Programs into a basic grant, of which 10% is set aside for programs for handicapped students; 20% for the disadvantaged, with a portion set aside for bilingual students; and 15% for postsecondary and adult education.

    "Another grant to states would consist of funds for research, innovation, guidance and counseling, and inservice training programs. Separate programs would continue for home economics, bilingual training, and renovation and remodeling.

    "A new program of vocational guidance and counseling would be established with authorizations of $25 million for fiscal 1978, $35 million for fiscal 1979, $45 million for fiscal 1980, $55 million for fiscal 1981, and $75 million for fiscal 1982. Funds could be used for guidance and counseling programs, job placement, training of counselors in changing work patterns of women and overcoming sex stereotyping, counseling for youths and adults in correctional institutions, and establishment of vocational resource centers.

    "The conference bill would require vocational education institutions to assess their vocational training and to actually place students in jobs. It would also require assignment of full-time personnel to assure women students equal opportunity under vocational education programs, including the removal of sex bias in course offerings and textbooks, and a detailed plan for overcoming sex discrimination throughout the state vocational education program.

    "The Commissioner of Education would reserve up to 1% of the Congressional appropriation for contracts for vocational education with Indian tribes and organizations and for programs to be operated by the Bureau of Indian Affairs."

College and University Reports (Chicago: Commerce Clearing House, No. 593, October 4, 1976. Also, see "Title II - Vocational Education," *Congressional Record*, August 27, 1976, pp. 14822-14834; for "Career Education and Career Development," see pp. 14839-14840. Also, see Education Amendments, Conference Report, "Title II - Vocational Education," 94th Congress, 2d Session, Report No. 94-1701, pp. 95-145; Career education is under "Title III - Extensions and Revisions of Other Educational Programs," Part C, "Career Education and Career Development," pp. 152-157.

18. Xeroxed paper by Dr. B. I. Blackstone, "History of Vocational Education in the United States," dated November 17, 1975.

19. See, for example, *Trends in Vocational Education 1974*, and *Summary Data, Vocational Education*, 1974.

20. One of the best, most readable books on forecasting, on conjecture is by Bertrand de Jouvenel. It is *The Art of Conjecture* (New York: Basic Books, 1967) and will well repay the time required to read it.

21. Harold D. Lasswell, *op. cit.*

22. Charles E. Lindblom and David Braybrooke, *A Strategy of Decision* (New York: The Free Press, 1963), p. 40. Also see Charles E. Lindblom, *The Policy Making Process* (Englewood Cliffs, N.J.: Prentice Hall, 1968) and Charles O. Jones, *An Introduction to the Study of Public Policy* (Belmont, Calif.: Wadsworth Publishing Company, 1970).

23. Walter F. Mondale, "The Next Step: Lifelong Learning," *Change*, October, 1976, pp. 42-45.

In conclusion, I want to pay tribute to what has been an invaluable volume for me, namely: Mary L. Ellis, *A Report to the Nation on Vocational Education 1975* (prepared for Project Baseline, Northern Arizona University. This report provides important information and intelligent discussion of problems and prospects).

INTERNATIONAL ISSUES RELATED TO THE FUTURE OF VOCATIONAL EDUCATION AND TRAINING

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Introduction

The topic of this paper, international issues related to the future of vocational education and training, leads to a search for some kind of theme or thread of interest to bind the issues together and to justify a reason for addressing them at all. With a tone of detached concern, it is possible to observe that we have created aspirations toward an abundant life among those who are citizens of other countries and that it is now important to recognize how directly our own well-being is related to that of other nations. This is altogether too general, too simple and too casual a theme for our use. It is necessary to be more concerned and more specific.

What are the specifics? What are the events or trends or forces-at-work on the international scene which are important enough to lead anyone to believe that there are international issues related to the future of vocational education and training? This discussion will identify several of the specifics which are worthy of consideration. It will be followed by an elaboration of the types of issues which follow from these specifics. Thirdly, it will identify several issues which are especially relevant to the future of vocational education. Finally, it will conclude with a discussion of policy implications.

Scenarios of International Interest

A first trend of widespread significance is the recognition that there is an increasing mobility of labor. Some of the mobility is related to the distribution of jobs by industrial sector with the agricultural sector leading the decline in jobs and government service leading the expansion. Some of the mobility is related to technological change with the phasing out of old technical skills and the phasing in of new ones. Some mobility is induced by vocational training itself; training is intended to widen the range of choices available to those who receive it and the choices are often not available to the immobile. All of this occurs as the movement of workers within countries as well as between countries. But the most interesting, and often the most puzzling international phenomenon in labor mobility is the incidence of migrant labor.

Often referred to in Europe as "guest" laborers because they are foreigners with cancelable visas and work permits, they have accepted jobs which require a minimum of training and they occupy an occupational and a social status which is at or near the bottom in the host countries. For a considerable period of time the number of such "guest" laborers in Europe has exceeded 20 million. Likewise in the United States there are immigrant workers, many of them illegal whose numbers are estimated to be as high as 4 million annually.

Migrant labor, legal or illegal, has become a new dimension of social mobility as well as labor mobility. There are accompanying problems of cultural difference, language and the availability of the statutory rights intended for all workers. The appearance of large numbers of such migratory workers on the scene may be a permanent phenomenon of the international scene with problems identified as a special category of the disadvantaged.

A second interest-capturing scenario which is spread across the international scene is the nature and amount of legislation for vocational training which has been enacted during the past several years in many of the advanced countries. Japan enacted major vocational training legislation in 1969. The Federal Republic of Germany and the Government of France did the same in 1971. England's vocational training system underwent a complete statutory revision in 1973. It is well known that the United States has been heavily preoccupied with vocational education and training legislation from 1972 onwards.

A number of interesting observations can be made about this flurry of attention to legislation for vocational education and training. Most importantly, it was not prompted, as has much of the previous attention to such legislation, by national emergencies associated with preparation for war. Its focus, moreover, has been as much on social problems as on economic problems. In every country there has been special attention to, and major changes in, the system of governing vocational education and training. There appears to be a general concensus that vocational education policy is central to both human resource policy and to the functions of overall governance. But the policy elements remain unclear and mostly indirect. While vocational education appears to have become a plural activity to address multi-faceted problems of individuals and societies its implementation is highly singular. It relies singularly on training as though it is possible to train away the problems of unemployment, job distribution, cultural difference and income maintenance.

Early attempts to address the policy determinants of vocational education were begun by the Organization for Economic Cooperation and Development (OECD) in 1968.[1] Offering a summary of past, present and future problems connected with training of skilled industrial workers and clerical staff in seven different countries including the United States, it was the first report of its type to address problems of teacher recruitment, vocational guidance and research or the problems of carrying out vocational education policy. In retrospect, its most interesting conclusion is that vocational education specialists advocate following foreign models of training while their counterpart specialists in foreign countries criticize their own models in view of their experience with them. In the light of the vocational education and training legislation enacted in most of the OECD countries since 1968, the work of such regional bodies as the OECD becomes a strong reminder that the field embraces a number of complex issues, many of which are little understood as viewed across national boundaries. With such meager understanding of vocational education issues across easily negotiated national boundaries, there are also those which have been more formidable. The Peoples' Republic of China, for example, has accumulated experiences which are unique, usefully instructive and largely unknown to most vocational educators.

The thread of interest in the international issues related to vocational education and training is more than curiosity, altruism or the desire to look at such peripheral things as training methods or syllabuses. It is a desire to examine the way in which vocational education serves to ration jobs, status, and other rewards of society and the present and future policies which guide this rationing process.

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[1]Organization for Economic Cooperation and Development, *Manpower Policy* (Roger Gregorie). Paris, 1968, 138P.

Types of Issues of International Significance

The most compelling and recurring issue in vocational education and training is the question of its purposes. It is the pivotal issue to which all others are subsidiary. In every society, modern or traditional, vocational education has a role in allocating the work, rewards and the statuses to members of the society. The allocations of jobs to persons is much too complex a function to be a centralized action of government. It is also much too complex a function to be entirely a familial role. It is between these two extremes that vocational education, aided by government action, develops a set of conventions for mediating its purposes and goals. It is this government action and these conventions which ultimately became the descriptors of the purposes of vocational education.

These conventions describe the extent to which there is freedom of career choice, a convention which may often be exercised by prescribing the limits to or the unavailable choices. The extent to which vocational instruction is linked with non-vocational instruction is likewise a convention as is the age groupings to which such instruction is available. In almost every country it is conventional for the vocational training system to be most concerned with instruction for the occupations which require a long training period and the least concerned for those with a short training period.

In every country there is government intervention to attract individuals into unfilled occupations or to discourage them from entering occupations with a surplus of workers (i.e., information, stipends, tax incentives, etc.). Government action is also employed, as in the Vocational Amendments of 1976, in setting the conditions for democratic action and choice-making at other levels of government.

It is the conventions which survive by forces of tradition, and the conventions introduced by governmental action, which become closely linked to the purposes of vocational education and training. In the United States most of vocational education is focused on initial preparation and initial placement. In Europe much of vocational instruction is focused on "further" or subsequent training and upgrading. The purposes appear distinctly different but a greater difference appears to exist in the institutional framework for sustaining the difference.

The purposes associated with vocational education or training are central issues in international discourse concerning vocational education. But the purposes are not available for easy or quick adjustment. They are tied to conventions which are durable, rigid and often very effective.

A second type of issue arises out of the rapid change in the educational qualifications of the work force. In the less developed parts of the world, compulsory education is a newcomer on the scene. In the more highly developed countries the most obvious educational trend has been a rising school leaving age and a rapid expansion in the number of college graduates. This rise in educational attainment will create a momentum toward the educational upgrading of occupational standards but it will not necessarily change the job content to utilize the higher educational achievement. Such could lead to frustration among those who are competent in worker skills but who do not possess the educational attainment and it may also result in frustrating those whose educational attainments appear in excess of the job requirements.[2]

A third type of issue involves the relationship of vocational education and training to the supply and demand of trained workers. The policies and the programs which have been employed in the past

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[2]For a more complete discussion, see Harold Wool, *The Labor Supply for Lower Level Occupations*, National Planning Association, Washington, D.C. 1973.

decade have been concerned almost totally with supply. Vocational education and manpower programs have had a singular goal—the transmission of worker skills to those seeking to enter or reenter the work force. The preoccupation with creating a labor supply is always accompanied by the assumptions that jobs exist and that vocational education consists of the perfection of a system to match trained workers with the existing jobs.

The preoccupation with the supply of workers is also manifest in other ways. In periods of high unemployment there are appeals for early retirement, a system for masking or camouflaging unemployment. Reducing the length of the work week has similar effects. Focusing solely on the supply of trained workers may have little to do with overall unemployment. It may alter the competitive disadvantage of individuals and it may effect the distribution of jobs within an industry but it may have little to do with the number of jobs or the level of unemployment.

Can vocational education and training programs effect the demand of workers? Can such programs create jobs? Manpower policies of the job-creating type have been almost non-existant. Job creation has been almost entirely in the public sector with the jobs created being rather temporary in character. There is some evidence, however, that vocational education programs have been effective in creating jobs, particularly when the instruction has included work roles requiring entrepreneurial and other management skills.[3] The absence of attention to the demand side of the labor market is another of the numerous conventions which are accepted rather comfortably as part of the conventional wisdom associated with a job-filling mentality among vocational educators and educational planners. Its obverse, the job creating role, is an unexplored opportunity.

A fourth type of issue addresses the specifications and characteristics of the vocational education systems as they may be seen in various countries. This may be a non-issue but it is of sufficient interest to comparative study to warrant mentioning. As mentioned earlier the characteristics of vocational training programs in various countries are not a series of interchangeable parts. They are associated with longstanding conventions related to purpose. Nevertheless it is interesting to observe that vocational training in most of Europe, for example, has become a lifelong process and a "right" of workers that is as important as the right to vote. Sabbatical leaves for retraining may occur throughout a worker's life without loss of income and in some countries with rights of job retention. The training program is not an integral part of the elementary and secondary school system nor is it linked with training requirements essential to an incumbency in a job.

A common problem throughout the world is instructor training. It may be impossible to find any country in the world whose attention to instructor training has led to a common set of standards to apply for preparing, updating and monitoring the qualifications of vocational instructors.

The above consists of the typical observations made by touring visitors and, as mentioned earlier, such observations are not necessarily issues although such observations may lead to an inquiry into questions of underlying rationale and purpose.

Some Specific Issues of Concern in the Next Decade

A specific issue of international interest to vocational education involves the training problems in urban centers. The training problems may not have arrived; the current problem is still one of

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[3]A number of area vocational technical schools in Minnesota has generated employment in their geographic areas.

debt or bankruptcy. Until a decade ago it was assumed that the eroding city tax base was purely an American problem. Now the same applies to Europe and also to parts of Asia. It is occurring in London, Dusseldorf, Rome, Tokyo, and Hamburg.[4] Even where the poor are not moving in to the center of the cities, the wealthy are moving out. The pains of budgetary shrinkage are only eased by looking outside of the city for relief. Since industries have left the cities as well as individuals, there is little hope that they can be enticed to return. Cities are becoming reservoirs of the untrained or the inadequately trained cadres of the poor and the otherwise disadvantaged. If the effected cities survive and contain their erosion of resources, the vocational training issue will emerge shortly thereafter to present a common and a relatively new problem whose dimensions are international in scope as well as character.

The nature and meaning of work is an issue of international importance and at the very heart of vocational education. Occasionally it is referred to as alienation and often it is couched in language describing levels of work satisfaction. While studies of worker satisfaction do not reveal any major shifts in attitude, there appears to be a rising level of apprehension about the potentials for improving the quality of work and about the possibility that work in the future will not be available to everyone.

It is no longer a question of whether *homo faber* (man the doer) is subordinate to *homo sapiens* (man the thinker). It is a question of whether work, like language, can continue to be a bond between individuals in communities. Everything throughout the history of mankind has confirmed and reinforced the value of work. Its benefits have not been limited to what it produces but also to the notion of continued progress.

Even the most revolutionary ideologies have placed a value on work which exceeds its economic benefits. Work unites while unemployment isolates. The decline in the amount of work done by individuals in advanced countries, or even the changed conception of the value of the work that is done, may require a reconsideration of the fundamental principles which have guided a regard for work. It may require programs to give status to the unemployed, a new class that has been growing on a global scale.

The issue is by no means clear. If work is not an important gauge of man's merit and, if the degree of its usefulness is not major criterion for the distribution of society's wealth, what will serve as its substitute? For the present, no country can support the permanent non-employment of a large part of its population. In childhood and in retirement, non-employment is merely a transitory period. In the period of working life it serves to regulate the well-being of those to whom it is available. The decline of work or the decline of acceptable work is an issue of global importance.

While the distribution of work itself is an issue of importance to the future, the relationship of work to the distribution of natural resources to work is an issue of unquestioned importance. Recent experience with the oil embargo reminded everyone that the distribution and the cost of natural resources, an uneven supply, have enormous effects on employment and training. Even such a common resource as rainfall has acquired an importance of global proportions. Awareness of energy constraints should prompt policies for training and allocating human resources to match these constraints. This is not merely an issue involving natural resources, it is also a reminder that the future will require policies which consider the realities of international trade and the matching of worker skills with a supply of natural resources which may continue to be chaotically uneven in supply.

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[4]Peter Wilsher and Rosemary Righer, "Bankrupt Cities," *Development Forum*, Vol. IV, No. 5. June, 1976.

Some General Policy Implications

The policy implications tied to international issues are not uniquely international. An international perspective merely gives another perspective from which to view the issues which are essentially national. Constructing or contriving an elaborate list of such implications is neither useful nor instructive. Only a few will be mentioned here.

First, it is rather important that the field of vocational education remove itself from its role of comfortable detachment from the function of dealing with policy alternatives. The Vocational Amendments of 1976 have implored the State Boards of Education to consider vocational education policies as its most important task. It is a task which can be further informed by looking at international issues.

Second, vocational education policies and plans require linkages with social and economic goals and purposes. This is not a simple linkage; it requires a common language and a common understanding of the role and function of work and a clearer view of the occupational ladders on which the work force seeks an incentive and reward.

Finally, it is necessary to plan by examining alternative strategies for the future so that human and natural resources policies are considered simultaneously in developing long range plans.

WHAT SHOULD BE TAUGHT IN THE FUTURE

Guidance and Counseling
The Key to Learning

Thelma T. Daley
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Director, Baltimore County Career Education Program

"All through life we must keep choosing"
Philadelphia Public Ledger

What are the parameters influencing education in the future? What gives credence to the discussion and why is it not easy?

In viewing today's topic—what should be taught in the future—I am reminded of the words of Ralph Tyler, Director Emeritus of the Center For Advanced Study in Behavioral Sciences, who said, "Tomorrow's education can thus be shaped by tomorrow's society, and the new demands, new problems, and new aspirations it is heir to."

I guess if I really relied on Ralph Tyler, who has through the years looked at education in the future, I could not go wrong. In a capsule, Ralph Tyler has tried to sensitize the nation to the fact that we—as a nation—are committed to educating *all* the nation's children; yet 20 percent of the nation's children do not acquire the skills and knowledges taught in the primary grades—and are left unprepared to progress toward responsible adulthood. So education of tomorrow must address *all* of America's children—and those receiving a basic primary education must increase from *80 percent* to at least *95 percent*.

We are in an era where diminishing resources or tight budgets are forcing us to find other avenues. The jargon of the day is *bridging the gap*—the *gap between school and work*—effecting the *transition between youth and adulthood.*

We are in an era when 8 out of 10 of the jobs by 1980 will not require a college education—yet a public opinion poll shows that more than 80 percent of the parents want their children to go to college.

We are in an era when it is predicted that a third of the nation's youth will not have a career unless educational institutions are joined by commerce, industry, labor, and public/municipal agencies in working out more effective ways for young people to gain employment and to move ahead as they demonstrate competence.

And schools must find an effective way to capitalize on the utilization of these resources.

Willard Wirtz in *The Boundless Resource* said that America's traditional separation of education and work cannot be tolerated.

We are faced with glowing headlines indicating decline in test scores, and the effect has forced curriculum departments to enter into introspection; ACT (American College Testing Program) to issue its reasons why; and the College Entrance Examination Board to establish a Blue Ribbon Committee to *study* the situation.

We are in a period of history when we are trying to elect the president of our country—and Jimmy Carter, in reply to a letter sent by my organization, The American Personnel and Guidance Association, wrote—"My educational reform program will contain specific and substantive *proposals* for implementation by the President, the Congress, and the states. My education program will assure

- Proper relationship between public and private education
- Expanded vocational and career opportunities
- Educational rights of the handicapped
- Proper consideration of private philanthropy in education as decisions on basic tax reform proposals are made."

President Ford, in his comments, stressed the effort to equalize the costs of college for the great majority of middle income Americans through the proposed $1.1 billion level of funding for the Basic Opportunity Grant Program. And the President further stressed his belief in block grants and stated that at the present time *formula* grants are awarded to states for stimulating new ways of creating bridges between school and employment for young people who are still in school, have left school by graduation or by dropping out, or are in post secondary programs of vocational preparation. He stressed formula grants for adults who have not achieved a 12th grade level of education and stressed formula grants to the states as assistance in the provision of educational services to handicapped children.

The words of both candidates seemingly do not give strong directions for what will be taught in the future, at least in terms of executive level support. This lends credence as to why this Forum must reach some conclusions and strategies that will help shape the educational parameters of the future.

With all of this as background, my role in addressing *What Should Be Taught In The Future* is to focus on the counseling and guidance implications. I feel diminutive in this approach, because I feel that the futurists should be present talking about the maintenance of an equitable and dynamic equilibrium between world population and world resources. And as Ray Amara said in *The Next 25 Years: Crisis and Challenges*—"We are faced with a new set of general challenges stemming from relatively shrinking resources, growing pressures for redistribution of wealth and income, and obsolescence of conventional mechanisms for effecting adjustments quickly."

But be that as it may, fads in education come and go, but the human being clings to the basic desire of wanting, working toward, and striving to become a self-actualized, humanized person. In the center of all that is taught now—the present and tomorrow—the future, is the *individual*. Key to the individual mastering a wholesome place in life is his/her *discovery of self, career planning, clarification of values and attitudes, development of decision-making skills, acquisition of skills and knowledge, and the gaining of knowledge in understanding and coping with the economic, social, and political forces* that shape, directly or indirectly, his/her life.

These *elements are life; they are education*; they are inherently a major focus of guidance and counseling. In part, they are career development; they are career education. Regardless of the entitled aegis, they are keys to *individualized learning and relate to elements that could cement the swinging bridge between vocational education, counseling and guidance* and the future.

Much of education should focus on Maslow's theory of actualization and should be a process of "helping individuals examine their life experiences with the goal that they might know themselves and their environment better and act on that knowledge more purposely and creatively." (Hansen et al., 1975, p. 638). Gilbert Wrenn in *The World of the Contemporary Counselor* addressed the need of the counselor to attempt to understand contemporary youth (or the adult) and the world in which they live. A corollary of knowing about the world is the need to know how to deal with this new knowledge, to understand what new counseling emphases and processes grow out of this new world. And secondly, the counselor must reduce the gap with the student (client) so *that communication can be meaningful.* (Wrenn, 1973, pp. 3-4).

As one looks to the future, the high illiteracy rate, as well as the high unemployment rate, the diminishing energy supply, the overabudance of workers and the undersupply of capital seemingly dictate that regardless of the educational content of the future, there must be a *collaborative* approach to *management, resources, and delivery or the most imaginative dreams will abort from sheer lack of implementation forces.* With the individual—the student—as the goal, we must come together in our curriculum thrusts.

But first, let me establish that counseling and guidance is curriculum development. It is that force which undergrids the cognitive, the affective, and the psychomotor learning approached and developed through the curriculum. Counseling and guidance is psychological education; it is the helping profession. It is that integral part of the educative process that puts the lifelong development and humanism in vocational educaiton. It is that process that relates to the handicapped, the disadvantaged, the disruptive, the minority, the gifted and talented, as well as the masses in the modal population of our educational system.

Prior to the examination of counseling and guidance issues which may impact vocational education, it is imperative to establish some basic premises that must be addressed. First, it should be understood the vocational education as duly recognized by Congress *predates* such recognition of counseling and guidance. The first Vocational Education Act was passed in 1917 with many subsequent Acts on through the Vocational Education Amendments of 1964 and the latest, Title II - Vocational Education of the 1976 Omnibus Education Bill. The increased legislative support should be quite clear for its effect has been both positive and negative in terms of the *coexistence* of vocational education and guidance and counseling. It should also be quite clear that as one examines the legislative process, the 1976 Education Bill increasing bilingual vocational education programs to forty million, as well as stating that the Statement of Purpose is to emphasize that the purpose is to assist states in improving planning in the use of *all* available resources for vocational education and manpower training by involving a *wide range of agencies and individuals* for development of the plan, is congruent with the philosophy of proponents of counseling and guidance. A further revelation is that the legislation authorized Federal grants to extend, improve, and where necessary, maintain vocational education programs and authorizes programs of vocational education to *overcome sex discrimination* and sex stereotyping. Another interesting facet is the House Amendment which emphasizes that vocational training be available to persons of *all* ages, regardless of sex, race, religion, or national origin. In the words of Carolyn Warner, Superintendent of Public Instruction in Arizona, "After 60 years of existence, vocational education finally seems to be coming into its own. Labor, manpower, education, and legislative experts are now beginning to recognize that vocational programs represent an excellent means of providing today's students with the core training needed for tomorrow's jobs." (Warner, p. 2). Counseling and Guidance, without the long historical perspective of Congressional endowment, has been a mover in the reduction of sex role stereotyping, the nondiscriminative practices in regard to race, religion, and national origin, and has attempted to coalesce agencies and the communities, but my mentioning of the attempts do not necessarily predicate success.

In 1917, federal legislation was passed to support Vocational Education. History reveals that around 1916-17, *vocational counseling* was introduced in the *Boston School System. In 1913, The National Vocational Guidance Association, Inc.*, was founded; in 1917, the first department of education was formed at Harvard under a new name—the Bureau of Vocational Guidance.

It is important to note that the guidance and counseling movement was not a streak of lightning that suddenly burst through the atmosphere with a loud boom, exuding a traumatic reaction and then vanishing. Quite the contrary, it was almost the tortoise (vocational education, the hare), for its infancy was slow. Not unlike Vocational Education the Great Depression stimulated interest in vocational guidance and government supported training and counseling programs for out of school youth and adults.

The race for space in the early sixties brought counseling into a viable, and yes, enviable position in the educational hierarchy. Unlike the continuity of federal legislation in support of vocational education, the National Defense Education Act of 1958 (NDEA) was like a shot of adrenalin to counseling. It was up and running. Subsequent doses were the Manpower Development and Training Act of 1962, the Vocational Education Act of 1963, the Economic Opportunity Act of 1964, the Elementary and Secondary Act and the Higher Education Act of 1965. This historical development has been cited to reinforce the premise that vocational education and counseling and guidance have been parallel in their age pattern but the growth spurts have been different as vocational education was the affluent child with the castoria and the vitamins and guidance and counseling was the home-spun child that endured on faith, and an overwhelming immunity conditioned as a response to the times and the lack of early federal intervention.

A Historical Perspective

Via quick review and drawing upon Stiller's interpretation (Odell, 1973), it is stated that counseling in its first 40 years passed through four identifiable stages. The first stage, from 1910 to 1940, emphasized Parson's concept of analysis of the individual and of the job market, which would lead to man-job matching. In the second stage, from 1946 to 1956, emphasis shifted to Carl Rogers' self-concept theory of meeting the needs of youth as these needs were perceived by youth themselves. Counselors became more conscious of the philosophical orientation from which evolved from their working philosophy and behavior. In the third stage, which occurred in the late fifties and early sixties, counselors' theoretical background was not considered as important as their experience and personal characteristics. The fourth stage of the sixties was one of professionalism. The seventies is labeled the period of innovation. This decade has merited such debates as whether the counselor will be a generalist, providing educational, vocational, and personal services to all students, or will the counselor choose and become the educational or the vocational or the personal counseling specialist. This decade has moved into group counseling, Parent Effectiveness Training, the Transactional Analysis, the Sid Simon Value Clarification sessions, the delving of counselors into bio feedback, and even to some extent, transcendental meditation. *But the decade of the seventies has been the advent of the rebirth or the renaissance of career education and since the groundwork for career education was laid through the aegis of counseling and guidance, it is only natural that career education is indeed a major counseling and guidance issue which will ultimately have an impact on vocational education decisions.*

Career Education

The increased activity stimulated by Sidney Marland's reform movement through career education, has stimulated an analysis of career choice and the theories that once went accepted as status quo.

Counseling and guidance personnel were in search of a bridging of the theory that can rightly serve as the basis for today's intricate decisions. Reardon and Burck (p. 18) stated that most of the major theories of career development can be categorized in terms of two perspectives: (1) those theories which emphasize the specification of factors or processes at work during the time of the career choice event, or (2) those theories which emphasize life-long nature of a cumulative career choice process. Trait-factor theorists, such as Anne Roe and John Holland have conceptualized the career choice process largely as an *event* which occurs during the *late adolescence.*

Theorists such as Eli Ginzberg, Donald Super, and Peter Blau have viewed the actual choice of a career education as but *one event* in a *long chain of events* which comprises a developmental pattern. Neither direction is all encompassing nor indefatigable. Counseling and guidance personnel who adhere solely to the trait and factor theories believe in the matching game. Thus a *matching* of the *objective data* about the *individual* with *objective data* about the requirements of the *job world.* If one continues to believe that once such a matching is accomplished, an individual's *vocational choice problems are solved,* then all of career guidance could focus around *definite periods in a person's life and the task could be sealed and labeled,* "Completed – For The Stacks," but I fear that if this were to prevail, the "fragile" mark would soon emerge and a floundering individual would be left in wonderment as to what happened to his/her beautifully outlined life.

There has not been developed adequate career development theory(ies) to coincide with today's outlook of career development. From my vantage point, credit should be given to the Roes, the Hollands, and the Ginzbergs, and by all means, the Supers, but practitioners should begin to critically realize and analyze the *negative* and delimiting effect a *total* belief adherence to the theories of the Ginzbergs, the Roes, and the Hollands might generate. Holland's six personality types–realistic, intellectual, social, conventional, enterprising, and artistic, and use of a data bank in occupations in terms of modal work environments might have a delimiting effect on users. The same holds true for Roe's career choice as a *point-in-time* concept. Ginzberg's conclusion that occupational choice is not a single decision, but a *developmental* process is commendable. However, his compromise stage at age eighteen refutes or rather is not in tune with today's tenor–that one is *constantly* working toward a career which consists of many occupational roles which go until death.

And so, a *key issue* on the *forefront* is the *on-going development of relevant theories of career development and occupational choice. Who will come forth with new, fluid, relevant theories?*

Still pivoting around the career education thrust, in order to have a basic framework, let me cite the nine career education student objectives (USOE, 1975). These objectives are armed to produce students at any age level who would be:

1. Competent in the basic academic skills required for adaptability in our rapidly changing society

2. Equipped with good working habits

3. Capable of choosing a personally meaningful set of work values that foster in them a desire to work

4. Equipped with career decision-making skills, job hunting skills, and job getting skills

5. Equipped with vocational personal skills at a level that will allow them to gain entry and attain a degree of success in the occupational society

6. Equipped with career decisions based on the widest possible set of data concerning themselves and their educational-vocational opportunities

7. Aware of means available to them for continuing and recurrent education once they have left the formal system of schooling

8. Successful in being placed in a paid occupation, in further education, or in a vocation consistent with their current career education

9. Successful in incorporating work values into their total personal value structure in such a way that they are able to choose what, for them, is a desirable lifestyle (AIR, p. 23).

The American Institute of Research Report (p. 17) indicates that Gallup polls taken in 1975 have indicated strong public support for the goals of career education. It is interesting to note that in 1972 respondents were asked for the goals of career education. At the top of the list, 44% of the sample stated "to get better jobs." The 1973 Gallup poll asked, "Should public schools give more emphasis to a study of trades, professions, and business to help students decide on their careers?" Ninety percent of the respondents said "Yes," more emphasis should be given. In a needs assessment survey administered to eleventh graders in five Maryland counties in 1976, the highest need area exhibited by the students were: finding jobs and careers, developing career awareness, planning careers, making decisions, need for on-the-job experience, need to talk with people employed in areas of their interest. This coincides with the American College testing poll conducted by Predinger et al., that indicates strong student needs in career planning.

All of the above seem to document the words of Ferrin and Arbeiter (p. 1) who said that in the 1960's, the words were "excellence," "equality," and "relevance" as educational reformers sought to attach one societal need after another. The 1970's ushered in the ringing sound of "accountability," but the new word is "employability." Taxpayers want schools that will provide their young with skills *that will make them employable.* Undergraduates protest those programs that do not—as they see it—prepare them to obtain a good job, and enrollments in many such majors have dropped sharply. Foreign languages have been demoted to minors at some institutions and totally abolished at others.

The above objectives and career education emphases stimulate a key counseling and guidance issue that must be reckoned. Most of the nine OE Career Education objectives stress *work.* The College Board study emphasized that employability was the word of the day. *Proponents in counseling and guidance believe in developmental career guidance with programs that start with the career development of individuals and their needs rather than the world of work. Career is viewed broadly to stress life roles and life styles—with occupation considered as only one part of career.* The Minnesota Career Development Curriculum (CDC) under development at the University of Minnesota (Hansen and Tennyson, p. 641) seemingly stress the career development concept and relate to the following:

First, career development is a lifelong process of self development, *work* being viewed as a vehicle for self clarification.

Second, career development includes the opportunity to examine *life roles,* occupations, and life styles.

Third, the process of life span career development and decision-making is emphasized more than the choice itself.

Fourth, management of one's career, the power to direct one's future, the ability to maximize control over one's life is a major tenet.

Fifth, the concept of *multipotentiality* that each person has the potential for success and satisfaction in a number of occupations—*frees individuals* from the fear of making *wrong choices* and increase their available options. (This has a direct implication for vocational skills.)

Sixth, commitment with tentativeness is a concept that is integral to a model based on changing individuals and society and that recognizes the importance of *chance factors in career decisions.*

Gysbers and Moore (p. 647) tell us that we are beyond career development—it is *life career development.* They indicate three major guidance and counseling responsibilities: *curriculum-based responsibilities, individual facilitation responsibilities, and on-call responsibilities.* In essence, they view the curriculum-based responsibilities as bringing the counselor directly to the student through the classroom. The individual facilitation responsibilities include those systematic guidance and counseling activities designed to assist all individuals in continuously monitoring and understanding their growth and development in terms of their own personal goals, values, abilities, aptitudes, and interests. On-call responsibilities are the immediate responses to individual needs, providing such assistance as information-seeking crisis counseling and consultation.

The Arizona Department of Education (Nov. 1975) in viewing vocational education stated the need for the development of the "whole student." The Department stressed that youth need opportunities to develop motivation, respect for their capabilities, understanding of their future economic roles, civic awareness, and recognition of personal leadership potentials.

The focus today is on education and work as documented by Wirtz in *The Boundless Resource* when he stated that—"clearly, the decay at the bridges between education and work has proceeded faster than have the bridge builders." Now, suddenly, the significance of these floundering efforts has taken on a whole new dimension.

Regardless of the *employability theme, schools must turn out well-rounded individuals who are able to attain satisfaction in life and work.* But an issue is where does the educational world and the world of work join hands to harmoniously plan, lend resources, and work toward that work which will render life-long development?

If *work is the thread, how will it enhance leisure? Everyone should have a lifetime leisure skill. What about the family? Health? Values?* These are issues in the counseling and guidance realm and very definitely affect vocational education and will affect the future of education.

Vocational Education must make special provisions for *developing basic career attitudes and skills.* HEW (1973) has observed that guidance needs to become an integral part of education and suggested that a focus on career development is *one way to achieve such an integration.* In terms of Tiedeman's (1972) sense of agency, students in vocational education need to believe that they can direct their careers so that they can become the kind of people they wish to be. Career counseling then seeks to help people select and enter occupations that they recognize as compatible with their talents and goals. This means that one needs to be able to set one's own goals. Second, one needs to believe that the knowledge and skills needed for achieving those goals are accessible.

The Issue of Vocational Counseling

Terminology is still a hang-up in American society. Vocational counseling must become *career counseling* in the fullest sense of the word. This means *counseling* that will help young and older clients plan for a continuing lifestyle. This means planning to find satisfaction in the job, but also, planning so as to find satisfaction beyond the job. Counselors and vocational educators must join hands in helping curriculum developers to plan for development of leisure skills and counseling for leisure. This means that vocational education cannot be encapsulated as a cocoon spinning its web. Vocational education must become a part of the total curriculum and *must be available to all.* Vocational educators and guidance personnel must join hands to effect legislation. The American Personnel and Guidance and The American Vocational Association must work conjointly for ultimate goals. We must form a coalition to work through bureaucracy for all legislation efforts that will enhance career counseling. The results of making the curriculum more psychologically oriented and teaching psychological education courses will be restricted in their usefulness unless the school, family, organization, or governmental institution provides supportive opportunities and incentives to practice what has been learned. This has distinct inference for the fluidity of vocational education.

Group Career Counseling – A Trend, An Issue

Campbell (p. 293) has stated that there are many arguments for continued popularity of group counseling, i.e., the current momentum of the group movement, new techniques, vicarious learning, and problem sharing. In spite of the economic aspect, group counseling has excellent ways of allowing peers to give new insights to each other.

In most school settings, vocational educators will not even allow their students to be involved in group career counseling. The existing attitude is that they have a career choice and they do not need "any group career counseling." The National Advisory Council on Vocational Education could do well to take under advisement this closed shop attitude that restricts the fluid opportunities available to youth and prohibit the development of factors to enhance the life career development.

Career Resource Centers

A growing development is the continual emergence of resource centers to assist students in their career development. I would recommend the pooling of vocational and guidance funds to establish in every school a reasonable resource center. In rural areas, I would recommend resource mobile units. This has implications for funding and utilization of human resources. With the involvement of industry, there could very well be community resource centers.

Use of Computers – An Issue

It is reputed that the first computer-based guidance prototype was developed in 1965. Since then great strides have developed as depicted in Educational Testing Services SIGI and the Computerized Vocational Information System (CVIS). But computer assisted guidance is *expensive*. With the input of more local data, I would strongly recommend that vocational education utilize some of its funding in providing these counseling services for youth.

Assessment of Career Development – An Issue

A reappraisal of vocational appraisal suggests a new look for this old concept. Crites (p. 278) suggests that we need to reconceptualize vocational appraisal as an organic, on-going part of career development theory and research. I see implications for forward research in this area and it involves vocational education, counseling and guidance, as well as others.

Transferable Skills

Campbell (p. 296) has said that guidance has relied primarily on conveying vocational facts and concepts to students. But future practice will have to go *a step further and equip students with vocational skills which have transferable value beyond the school setting.* This means that vocational educators and counselors will have to work together in the development of decision-making skills, job hunting techniques, and on-the-job adjustment. In the words of W. W. Harman in *Notes on the Coming Transformation:*

> In the long term the outputs of the economy must be thought of, not as goods and services alone, *but as goods and services plus satisfying social roles.* The industrial-age "central project" of material progress must be replaced by a new "central project" *capable of enlisting the energies and inspiring the commitments of society's members. This will no doubt emphasize quality of life, spiritual as well as continued technological development, and awareness of man's role in the evolutionary development of consciousness on the planet.*

I have not even attempted to address the issues of sexism and sex role stereotyping. Surely with the advent of Title IX this issue is being addressed. But it cannot be taken for granted.

Let me propose, however, that the time has come when guidance and counseling and vocational education must *stop* being at odds and join forces and work together. This has not been the trend in legislative endeavors, associational endeavors, nor in the daily educational routine.

Proposal

With analyses of the current status of guidance and vocational education, coupled with the strong move for an education work policy, as well as the full involvement of the community, I propose that there be a series of Career Development Institutes supported by federal or state funds directed toward coalescing the maximum resources of counselors and vocational education personnel in helping schools to strengthen career counseling; to develop means of utilizing the community, family, business, industry, and labor; and to design ways in which counseling and guidance can give full support to vocational education.

I propose that in the development of curriculum, that counseling and guidance be an integral part and that education, now called vocational education, *be made available to every individual in the secondary setting*—young men, young women, the gifted, the talented, as well as the handicapped.

I propose that pre-vocational or career guidance be made available to *every middle/junior high youth*; and last, it is proposed that vocational education teachers be involved with *counselors in inservice geared toward refurbishing the aspects of human development.*

I propose that there be concerted study in finding *means of more accurately predicting employment outlook;* and further, that the study and *development of comprehensive, current, career development theory be given special attention.*

I further propose that counselors share their human development skills with vocational educators, and that vocational educators share technical skills with counselors that might enhance their work with people.

You ask what should be taught in the future?

Teach the person how to *decide* so that she/he can roll with the times. Teach the person the basic skills but also open the vistas so that persons endowed with the basic skills can seek to become what Maslow described as that *self actualized person.*

Teach the person the way in which he/she can clarify his/her values. Help them to identify the moral values and ethical standards in situations that they encounter and the actions they take; help them to learn how to anticipate the consequences of those actions and become sensitive to their effects on others.

Education of the future will need to build attitudes—attitudes toward work, toward life, and toward human beings.

Teach the person how to plan—to do career planning—for career planning is a *life long endeavor.* Its roots are locked into the stages of infancy and its potential carries it from one role to another—even in today's so-called stage of retirement—this is *career planning.*

What should we teach in the future?

Teach human beings that there is no *one right* job or profession; teach human beings that no job is relegated to one sex—one race—one religion or one culture. Free the bondage so that one can learn that he/she is in a free society. Teach individuals to probe—to explore the unknown. *Be not afraid of being different.*

Teach the individuals to be futuristic. Statistics influence our lives but statistics do not totally control our lives—so be not afraid to venture beyond predictions.

Teach the skills. The attitudes, but teach people how to *work together* by having those who teach the learners work together for a common goal—*the life development of the individuals.*

What to teach in the future is filled with our dreams and in the words of the late poet, Langston Hughes:

> What happens to a dream deferred. Does it dry up like a
> raisin in the sun. Does it stink like rotten meat or
> crust and sugar over like a syrupy sweet. Maybe it just
> sags like a heavy board or does it explode.

The key to learning is a concerted pooling of resources and full utilization of the existing human potential.

No man is born into the world whose work
Is not born with him; there is always work,
And tools to work withal, for those who will;
And blessed are the horny hands of toil.

James Russell Lowell
1819-1891

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WHAT SHOULD BE TAUGHT IN THE FUTURE

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My speculations on what will be taught in the future about occupational education are based primarily on projections of practices that appear to be valid in the light of what recognized scholars forecast as well as in terms of patterns which I perceive to be in process.

Admittedly there is a reflection of some biases I may have about educational practices I would like to see expanded and extended. It requires no clairvoyance to state that much of what is being taught today will continue for many years to come. It has often been stated that a sound educational practice may take 50 years or more before it takes root and impacts to any significant degree nationwide.

Serious concern for what shall be taught in the future demands first of all thoroughgoing criticism of what is currently being taught. The curriculum should be in a continuous state of transition, the result of building on sound practice and the testing of new developments. The curricula for vocational education should be among the most dynamic. Many proposed changes will be resisted along the way but it will be a rear guard battle with those who are trying to defend yesterday's stronghold in a steady retreat.

The time is bound to come—and probably within the next quarter century—when the dichotomy between so-called academic and vocational education is acknowledged to be outmoded, dysfunctional and extravagant. As vocational schools increase and enrich their academic offerings, broaden their mission and refine their methodology while comprehensive high schools strive to meet the needs of all their students, including provision for work experience and other career education opportunities, the differences between these schools become less distinctive. No longer is one imputed to be engaged only in skill training and the other in intellectual development.

Occupational education for everyone has been finally accepted as a bona-fide responsibility of the regular school system. The concept of separate but equal schools and curriculum tracks is rejected in this connection as in others. The issues that once caused division and separation are now imaginary and illusory. All secondary school students need the resources of both types of schools. Hopefully the idea of partnership will prevail and the differences of these schools will become more a function of their relationship. Programs will be coordinated and students will be able to take courses in either school in whatever depth is desired, e.g., a course, a term, a year or more. In essence there will be but one school. All secondary school students need basic education skills, civic education, fundamentals of economics and some work experience including quasi-professional/technical training.

The consequences of such a cooperative arrangement may tend to further broaden the scope of the resources of the secondary school. The establishment of career institutions may also incorporate planned undertakings with private retail, commercial and industrial locations where students could explore types of employment and working conditions realistically. The attainment of such conditions will tend to heighten the issue of whether vocational programs should be less than four years.

Career education has stimulated efforts to coordinate academic and vocational education throughout the educational structure. Student demands for vocational education could very well increase as a

consequence of the expansion of career education, thus intensifying the need for a greater range of occupational programs than the offerings to date.

Vocational schools should broaden the curriculum to encourage the development of a wider spectrum of human abilities than those traditionally represented in standard programs. Educators should recognize the growing need in society for people who possess the interests, abilities, and highly developed skills so effective in working with other people. Such interpersonal skills are important capabilities worthy of recognition as being as respectable academically as other skills and should therefore be taught deliberately and consciously. Many service-type jobs require personableness and sensitivity as much as they do skilled competence. In our post-industrial society work takes the predominant form of exchanges involving interpersonal elements. According to Daniel Bell, the technology is essentially informational and the key resource is human talent.

The decision-making process in career program selection will become more sophisticated and effective as the findings of continuing systematic research in cognitive styles are implemented. Cognitive styles are associated with interests, abilities and even with self concepts as well as with ways by which each individual student learns. At least a dozen separate cognitive style dimensions have been well researched and half dozen or so others have been at least identified. Obviously cognitive style is a critical variable in students' vocational references.

The identification of these distinct personal qualities now enables each individual to engage in occupational studies suited to his interests and abilities.

The growing acceptance of the validity of cognitive mapping has contributed credance and realism to the individualization of instruction. There has developed a clearer understanding and an acceptance of the claim, not new certainly, that there are in fact, several modes of learning. References to learning styles are common and teachers are well acquainted with the principles and practices associated with cognitive, affective and psycho-motor domains.

Individualized instruction has been a widespread practice in practical arts courses. Industrial/technical/vocational courses have a history of pupil-initiated learning activities, pupil planning, cooperative group undertakings and ability-differentiated assignments and this fact augurs well for the future. Notwithstanding the fact that practical arts and vocational classes had more than their share of non-academically inclined students and, even though shop and laboratory equipment was complex, expensive and potentially hazardous class activities were diversified and frequently individualized if not personalized.

Because they are competency-oriented, teachers of vocational subjects will not find it difficult to encourage their students in acquiring the modes and skills of inquiry particular to the fields of production, consumption and service, the skills of copability, and the universal skill—that of using knowledge and its systematic acquisition as the foundation for performance, skill and achievement.

It is highly improbable that vocational education will cease to be competency-based. However, there is less assurance about what those competencies will be. Occupations based on the application of knoweldge in lieu of skilled manual performance will necessitate an increased emphais on the development of insights, concepts and principles. Reordering information, translating and/or interpreting directions, problem-solving and the ability to see particular cases as special cases of a larger set may constitute the nature of the required competencies of the future.

Undergraduates preparing to become teachers of vocational subjects are currently in some colleges acquiring a substantive knowledge background in their major fields. To cite one example, home

economics teachers not only learn how to prepare foods but they investigate the path of processing food from the farm through the food product manufacturer, including food preservation, and ultimately to the consumer. Those who major in food science study the nature of the physical and chemical characteristics of foods as well as their biochemical, biophysical and microbiological changes. Not only are the nutritional values of various foods considered but as well the health hazards contained therein from micro-organisms, toxic and non-toxic natural components and the effects of chemical additives.

The assumption underlying the thesis I am presenting is that this country is moving toward a true knowledge economy where the increasing use of knowledge becomes man's basic resource and where the critical element is theoretical knowledge. All societies have existed on a foundation of knowledge, but not of theoretical knowledge.

Every one of the new emerging industries is squarely based on knowledge. Not a single one is based on experience. The nation's "growth" industries will depend more and more on sophisticated resources. Our economic future is not tied to the material and physical resources we are now knowledgeable of but to the vast potential of human talent and particularly of creative thinking which Buckminster Fuller calls the "metaphysical process." As he states it, our economic prosperity will come from individuals, not from the ground; from the vast potential of thinking, not from known reservoirs of present fuels or materials; from mental energy, not physical. In the words of Peter Drucker, ". . . the technology of the twentieth century embraces and feeds of the entire array of human knowledge, the physical sciences as well as the humanities. "Indeed," he states, "there is no distinction between the two." Knowledge in this context refers to the application or implementation of information to some accomplishment. Drucker claims that the applications of the physics and quantum, the science of matter and structure, the physical chemistry of molecular and atomic bonds are the foundations of new industries.

This growing importance of theoretical and academic foundations of knowledge as opposed to experience and on-the-job training have strong implications for what should be taught in the future. New jobs that are anticipated will start out with theoretical knowledge. Old jobs will either be changed to knowledge jobs or will be replaced by knowledge jobs. The science-based industries of electronics, optics and polymers begin and end with theoretical knowledge. The manufacture of chemicals requires a theoretical knowledge of the macro-molecule being restructured.

The computer and hologram laser are derived from twentieth century work in theoretical physics and chemistry; the computer which according to some estimates will ultimately be the single largest industry in the world is founded on symbolic logic.

The "systems" concept is basically a translation of the perception of configuration.

The knowledge worker is trained in a specific function rather than as a skilled craftsman. He applies ideas, concepts and information to productive work rather than manual skill alone. He is capable of using theory as the basis for skill in practical application to his work. The foundation of his job, whether skilled or unskilled will be knowledge. Even though the knowledge worker works with his hands he will apply knowledge rather than skill. Not all knowledge skill is complex. There is both unskilled and semi-skilled knowledge work. Knowledge skill may call for a high degree of abstraction coupled with a low level manual task. The critical factor is not the degree of sophistication or the newness of the information rather it is the ingenuity and skill of whoever applies it.

By using knowledge as a foundation, workers are able to acquire skill in less time and with less effort and to unlearn and relearn more readily. Using knowledge as a basis of instruction makes it possible for students to acquire advanced skills more effectively in less time.

The knowledge worker desires a job that is big enough to challenge him. He is not satisfied with making a good living. He seeks sastisfaction and status in his work. He wants to perform as a professional. He insists on having more input in his job. His desire is for more self-determination. The true knowledge worker is not restricted to opportunities of working within one of the established occupations. His ability to apply knowledge makes it possible for him to plan his own line of endeavor and to employ his knowledge in a career of his own making.

The study of materials will continue to be a basic area of the vocational curriculum. However, there is a new materials concept, virtually a revolutionary shift from concern with substances to concern with structure. The starting point of the new man-made materials is a specific microstructure of atoms and molecules and the physical, chemical and electrical characteristics of such a structure under the laws of quantum mechanics.

The new study of materials will investigate molecular arrangements that are open-ended and capable of being developed for a specific purpose and out of an understanding of the fundamental characteristics of matter. Technologists will have the capability to design composite materials in which different structural elements serve different purposes. The "materials revolution" will make possible an enormous number of new products and new markets.

In the field of energy new developments will expand nuclear fusion, solar, ocean thermal and geothermal energy sources. Pollution-free hydrogen generated from water and sunlight will energize various vehicles of transportation. According to Buckminster Fuller, the work of Einstein and those who have followed him have proven that "energy can neither be exhausted nor originated. Energy is finite and *infinitely* conserved." As we *seem* to use up one form of energy, it is turning into another. The only thing limiting our ability to find or develop the energy we need is our technological competence.

In the field of structures there will be further developments with the geodesic dome, stressed shells, pressurized skins and there are serious thoughts about space cities within gigantic cylindrical tubes placed in a stable position between the earth and the moon. Underwater dwellings in the form of submarine buildings have been predicted for some time and now huge floating islands with high-rise apartments are also envisioned.

Increasingly, vocational schools will provide students with opportunities to examine and discuss basic economic concepts and their application to the democratic political system of the United States. Studies have shown a widespread misconception among many Americans, particularly youth, about the American free enterprise system. There is distrust and disenchantment toward big industry and business and much misinformation about the alleged profits being accumulated. It appears that whatever the form of instruction students are receiving about American business and industry, it is slanted negatively and based on exaggeration and distortion. The solution will not be found in advocating specific economic viewpoints whether they represent Laissez-Faire capitalism or revolutionary socialism. Such issues as state ownership or private ownership or mixed ownership of essential industries, should be examined in the secondary school vocational program and should have the support of the best scholarship available.

Buckminster Fuller maintains that both the capitalist and socialistic ideologies are wrong because central to both is the thesis of limitation—"not enough to go around."

According to Freeman Butts the challenge of public education today is more political and cultural than it is economic. That challenge is to achieve what we proclaim to be our historic political goals: freedom, equality, justice and community.

Butts has reminded us that the founding fathers viewed the kind of education needed in the new republic largely in political terms rather than as a means to academic excellence, individual self-fulfillment or preparation for a job. They saw the need to mobilize disparate social, cultural and economic groups if greater political cohesion and unity were to be achieved.

Butts has proposed that the prime contribution of the schools should be to enhance as far as possible the political capabilities of students to think and act as citizens who will support the liberal political community so that it will be the context within which the economic decisions will be made. A broad range of fundamental issues in economic theories and systems can be addressed utilizing the best scholarship available ranging across the full spectrum of theories from left to right; but the objective of the schools should be to try to build positive commitments in thought and action to the democratic values of the liberal political community and to the liberal political processes of the democratic order.

While the educational level of American workers continues to rise, there are questions about the amount of education actually needed for many of the jobs in our economy. Still, employment growth is projected to be greatest in occupations requiring the most education and training, and these may be occupations not traditionally encompassed by vocational education.

Approximately half of all occupations require less than a high school education. If one excludes professional, managerial, technical, farming and machine trades, considerably less than half of the work force is in jobs requiring more than an elementary education. If additional education allegedly results in job dissatisfaction then what is called for is not simply more education but a different kind of education. What is needed is that more attention be given to educating the individual in the hope that each will select an area of occupational education compatible with his or her interests and abilities and that a strong focus be placed on the development of the unique qualities of each person. Job satisfaction will ultimately be a matter of personal adjustment and knowing one's strength and weaknesses and learning how to optimize, to balance and compensate may be the key for many workers.

It should be apparent that secondary school vocational programs should be developmental rather than terminal.

In contemplating what shall be taught in the future, it should not be assumed that vocational education will remain in either its present form or mission. It is more likely that it will not. Social and economic changes will initiate the development of new programs and priorities and the elimination of outdated programs. The concept of matching youth and jobs will give way to an emphasis on developing one's individuality or idiosyncrasy.

In summary, during the next quarter century there should be far reaching changes taking place in the character and program of vocational/occupational/career education. The several purposes and functions of vocational education create alternative futures. Whatever disagreements exist among vocational educators will, in all probability, continue, in some degree, to be a source of competing value in the future. No single trend or development will satisfy everyone. There will be both advocacy and rejection among able, earnest and sincere vocational educators. Serious ruptures between the champions of the practical-training-experience and the theoretical knowledge-foundation program are inevitable. But vocational educators have in the past, been zealous in their efforts to keep their programs in tune with the practices of the work-a-day world. The decreasing importance of primary and, more recently, secondary occupations and goals and the anticipated transition from tertiary to quatenary occupations and goals foreshadows the emergence of the post-industrial economy, institutions and culture. The trends are unmistakable—increased technology, emphasis on cognitive skills and knowledge, a growing service-based economy, unemployment, underemployment

and increased leisure—all will strongly influence the future of vocational education. It is more than a speculation that the current focus on the saleability and transferability of specific skills will give way to a change in emphasis on the more theoretical skills as they become the more salable.

Attitudes and outlooks toward the work ethic are also undergoing change. What seems to be emerging is a broader definition of work which transcends the conventional view of equating work with a job and includes all productive and creative activities which contribute to human growth and well-being.

Thirty or forty years ago George Counts posed a question which stimulated widespread and often heated discussion. His challenge was "dare the school teach a new social order?" In closing I would like to paraphrase that challenge and ask, dare vocational educators change the role and character of vocational education in keeping with the new technological order?"

LABOR AND VOCATIONAL EDUCATION–

"WHAT SHOULD BE TAUGHT?"

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The purpose of this paper is to provide a current overview of the field of vocational education as reflected by the experience of the American Labor Movement.

Any look backward will be brief and only to place the union view in its proper perspective as we address the questions of the future.

The immigration of workers from Europe in the latter half of the 19th century and the early period of this century has been fully described in our textbooks on the American people. The skills which they brought with them provided the nation with a solid foundation from which to build. The system of vocational-technical education, having codified these skills, bears witness to the credit of American workers and the education community for their significant roles in the nation's development.

Concurrent with the importation of skilled craftsmen came the guilds which they formed in the old country. They were the forerunners of today's modern labor movement.

It is fitting, therefore, to salute American workers in this bicentennial year for past contributions and to acknowledge their views on skill development today and in the future.

The broad interests of the organized labor force requires that it view the subject of human resources in the widest possible terms.

Its involvement in vocational education is global and it therefore looks toward the future skill needs of this country within the purview of a revolution in technological advancement on the one hand and of swift social, economic and political change both here and abroad on the other.

This paper is presented therefore in this frame of reference. Time did not permit an exhaustive discussion of the issues. Accordingly, less attention was given to those points which should be obvious to the conference participants. The author does, however, lean toward the ideas engendered by recent world political and economic trends which will have an inescapable implication for American skill needs.

Unions in America look seriously upon their role in the nation's education system. Having fought for free universal public education in the past century, there remains a sense of history–possessiveness if you will. It is no wonder that organized workers tend to involve themselves in some aspect of the system mostly through their consumer interest and as taxpayers.

Today trade union interests in education moves vertically from pre-school education through the graduate school level. It constantly seeks to be heard at all levels.

One, however, must distinguish between labor's institutional interest in education from that of business, government and the education community itself. Moreover, individual union members also become involved in a range of interests not within the purview of formal trade union policy although seldom in opposition.

There is, however, a coming together of policies and views among the various concerned institutions in society, at least in general terms. There is discernible agreement that the principle of free universal public education be maintained and strengthened, for example—an occasional intellectual excursion to the contrary notwithstanding. There also is a desire to pursue the development of our human resources to keep pace with our leadership role throughout the world. There is the overriding concern that aid be given to the nation's youth, enabling them to maximize their options for future careers.

To implement education policies, unions work daily through their formal structure in an attempt to balance their goals with the above stated principles and aspirations.

Education departments and committees of national union organizations develop their policies in the light of their individual experience and interest and in the light of the level of income and job status of their members. The role of the AFL-CIO, the national labor center in the United States, falls generally in the effort to coordinate the specific interests of unions affiliated to it. Beyond that, the federation, by constitution, is committed to the struggle for the highest standard of education for all Americans, union workers and non-union workers alike and their families.[1] There is close collaboration between the federation and most large independent unions mainly in the legislative area.

The foregoing, of course, provides some general perspective on where labor fits into the general scheme of things structurally.

Having said that, let us return to the earlier mention of the need to distinguish labor's role in education matters from that of other institutions. Indeed, it is now appropriate to plunge into the topic of "Labor Looks at Vocational Education."

The brief historic overview of vocational education set forth in the Project Baseline 1975 *Report to the Nation on Vocational Education* parallels labor's assessment of the state of the art. The national commitment of previous years, to attack the problems of urban decay, poverty and inequality, did indeed bring new dimensions to the mission of vocational education. To reach national goals, the nation's schools had to get on with the job of training its youth for employment opportunities implied by the commitment. Skilled training was an idea whose time had come, in a broader sense, in the early sixties but we proceeded with our enthusiasm, to overkill by a proliferation of programs often unrelated to national need spread among several federal agencies. Many viewed vocational schools as archaic—a haven for drop-outs, teaching outmoded skills on obsolete equipment.

Business and industry leaders were begging for "people who could just read and write," while unions and industry stepped up their enrollments in apprenticeship training. At one point, many in the private sector turned their backs on the products of vocational schools. It was difficult to get vocational education high school graduates through the testing-interview process of joint apprenticeship committees, at least in the higher paid skills. Tests were often geared to more academic backgrounds.

When Congress, in 1963, enacted the vocational education law, it addressed the serious problem of high unemployment among untrained and inexperienced youth.

Labor played a strong supporting role in the passage of that legislation. Dr. Otto Pragan, then Assistant Director of the AFL-CIO Department of Education, represented union views at the federal level and worked tirelessly to implement the mission of state advisory councils.

It is rather easy to identify the prime concern of non-labor sectors. Government, of course, must concern itself with the national interest. Business needs qualified workers to maintain the highest possible rate of productivity to operate profitably. Educators have the toughest role of all—that of matching curriculum, method and technique to a rapidly changing job market.

But to add to this, there remains the special problems of minorities, women and underemployed adults, plus new technology and the uncertainty of future skill needs. Educators need the closest collaboration with all interested groups in the field.

Speaking for labor, the communication gap between unions and vocational educators could be improved, especially at the policy making levels. This point surfaced in a dramatic way during the initial dialogue on career education. Few planners understood the economic forces at work in the society and the adverse conditions in the job market. Accordingly, trade union leaders were motivated to react strongly in the area of job protection for adults and mainly heads of households. This view, for example, possibly inhibited the rate of growth connected with work experience related programs.

I submit that taking into account the importance and need of a viable, strong vocational education system, it is imperative that relationships between groups, institutions and government remain close and positive. The reverse of this is counter-productive and to the detriment of the nation's goals and objectives.

Labor's stake in vocational education is obvious because of its relationship to the workplace. Most large employers have collective bargaining agreements with their employees. It is therefore important to include all parties in the vocational education planning process at all levels.

In August, 1976, a short form attitudinal survey conducted by the AFL-CIO Department of Education reinforced the suggestion that we in labor must step up our involvement in vocational education planning.[2] This is desirable, but difficult, for most trade union leaders because of the multi-faceted roles they must play within and for the organizations they represent. Many are elected officials whose primary responsibilities relate to internal union matters. Of those organizations large enough to employ full time education and training staffs, vocational education is but one area of union interest. At the state and local levels they do, for the most part, reserve time to pay attention to the current developments in the vocational education field even though it is not always possible to attend every meeting called by the practitioner.

The national AFL-CIO has taken note of this and is arranging to improve its communication among affiliates on this subject—hopefully to motivate their upgrading vocational education among their list of priorities.

The survey results referred to above deserve some attention although they reveal little new information for trade unionists themselves.

It did not cover the entire labor movement. Only a select group of unions known to have an interest in skilled and technical training for employment were asked to respond. Agreement to participate was worked out in advance with 17 national and international unions representing some 5.5 million members.

They involved building and construction unions, industrial unions and printing trades. In addition, 14 of the 20 state AFL-CIO councils invited to participate also responded.

The questionnaire contained 7 basic "yes–no" questions of current interest to labor. Respondents were given the option to remain anonymous as to individuals or organizations in the interest of candor and to offer additional comments as they wished.

The results might interest others.

Results of Survey Questionnaire

1. Should there be a greater federal investment in apprenticeship and training?

   yes 76.5% no 17.6%

   (The remainder did not respond to this question)

   Additional comments:

   – Yes, but more attention should be paid to the industrial sector.

   – Yes, with other conditions, namely:

   The government should also increase funding for the Bureau of Apprenticeship and training;

   The government should also provide tax incentives to employers who hire apprentices or trainees;

   Funds for on-the-job instructor training should be made available.

2. If your answer to question 1 was yes:

   A. Should such funds go directly to local program?

   yes 41.2% no ——

   B. Should they pass through state or local government agencies?

   yes 29.4% no ——

   (The remainder had no opinion)

   One additional comment urged direct funding to local programs. Of those who responded, it was clear that they were involved at the state level and preferred federal funds to go there.

3. Regarding in-service training for military personnel, should credit toward journeyman status be encouraged by local joint apprenticeship committees for these persons?

   yes 76.5% no 23.5%

Additional comments:

- Some respondents answering yes conditioned their response by adding the following factors.

  a. If in-service training meets federal apprenticeship standards.

  b. If the training opportunities are widely spread in the industrial sector, excluding construction at this time.

  c. Only where local joint apprenticeship committees have input in deciding how much credit to be allowed.

4. With respect to classroom related training, does your program utilize the resources of any of the following:

   A. local public secondary schools? 88.2%

   B. community or junior colleges? 58.8%

   Additional comments:

   - Many respondents added vocational education schools, private schools and land-grant colleges to the list. It was suggested by one major union that community colleges were growing substantially in their interest to offer trade union services in the apprenticeship field and that some programs were transferring to these institutions.

5. In connection with 4B above, do enrollees receive credit toward an Associate of Arts Degree?

   yes 11.8% no 23.5%

   (These % figures relate to the base figure of all respondents but reflect only those who answered the question.)

   Additional comments:

   - Summarizing two main points made by respondents answering this question no significant interest was displayed.

   - Of those who had an interest, it was agreed that:

     a. There lacked uniformity on whether to grant credit for such training throughout the community college system, and

     b. These two-year institutions should work out some national guidelines for the recognition of skilled training through the granting of college credit.

6. The education "moonshot" of the past two administrations has been career education. Organized labor has supported the concept of exposing young people to the world of work so long as members of the regular workforce are not displaced. Moreover, AFL-CIO policy in this area objects strenuously to the establishment of sub-minimum wages to students engaged in early work experiences and to any violations of child labor laws, i.e., allowing youth to quit school at age 14.

Q: Do you agree with the content of the above paragraph?

yes 100% no ——

Q: To the best of your knowledge, do your constituents agree with you?

yes 94.1% no ——

Additional comments:

- As noted by the unamimity to the above paragraph, unions are concerned about program initiatives which fail to recognize economic conditions, i.e., unemployment. On the other hand, respondents noted positive attitudes toward programs to train young people including those which involve "hands-on experiences." Some respondents noted convention resolutions which called for affirmative action within their industries in this area.

7. To the best of your knowledge, what extent do your affiliates lobby for effective educational programs at the federal and state levels?

substantial 17.6% average amt. 58.8% very little 23.5% none 0

Additional comments:

- Most national unions reported an average amount of lobbying for education. In their view, the AFL-CIO and the American Federation of Teachers adequately represent their views in the Congress and at the state-level. Lobbying efforts are substantial, however, on other trade union issues.

State Labor Councils

State labor councils, on the other hand, report substantial lobbying for education bills within their respective states. They also indicated strong support for the vocational education systems in their states.

With respect to questions 1 through 6, state labor organizations strongly support the international union view regarding labor participation on state vocational education planning boards, expanding apprenticeship in the industrial sector and involving both the union and the company in such activity.

It would appear from the results of at least a non-professional sampling of opinion that unions in limited areas of the economy, where there is a tradition of apprenticeship, strongly support the system as an efficient and effective form of training. For them it could very well meet the nation's skill needs, thus bridging the gap between school and work. This point was reinforced by their strong desire to see the system expand in the industrial sector.

Many of them have developed programs with community colleges and vocational schools to supplement the in-house or on-the-job training provided at the worksite.

Yet, it must be recognized that apprenticeship programs represent a small piece of the skilled training action—with some 250,000 currently enrolled in formal union programs. Today, 16 million Americans are being exposed to some type of vocational training. In an article, "Labor's Stake in Vocational Education," August, 1975 Federationist, Dr. Ruby Oswald, now Acting Director of the AFL-CIO Department of Research, presented some pertinent data:

- Some 12 million are enrolled in the nation's public secondary schools, either in a single vocational course or in a formal vocational training curriculum.
- Another 2 million are enrolled in institutional training under the Comprehensive Employment and Training Act (CETA).
- 2 million more are enrolled in private vocational and business school programs.

In the public school sector, some $3 billion is spent by federal, state and local governments with state and local governments contributing 85% of the share. Federal expenditures approximate some $500 million—far too low to meet current and future needs.

There exists, of course, more conservative estimates of federal, state and local outlays and this raises the question of who does the counting and what is excluded. The important point is that needed expansion will up the ante and federal leadership is called upon here.

Before leaving this section, two important activities connected to vocational training should be mentioned. The first relates to the vocational training program conducted by the Maritime Industry and the Seafarers International Union. (No government funding is involved.[4]) The second falls into the area of collective bargaining for education benefits, a relatively new development in labor management relations.[5] The trade union movement points, with pride, to the Maritime program as exemplified by the Harry Lundeberg School in Piney Point, Maryland.

The school is the largest training facility for deep-sea merchant seafarers and inland waterways boatmen in the United States. The school has developed a pioneering approach to education which has successfully welded together vocational training, academic enrichment and trade union responsiblity.

Named after the founder and first president of the Seafarers International Union, the Harry Lundeberg School is the product of a unique cooperative effort of the Seafarers Union and the management of privately-owned American flag deep sea ships and inland waterways towboats. The school is committed to provide the nation's maritime industry with skilled and responsible deep sea seafarers and inland waterways boatmen.

The school's training programs are sanctioned by the United States Coast Guard, and its academic curriculum is accredited by the Maryland State Department of Education.

The school believes that the men who choose careers as professional seafarers or boatmen must be provided with the knowledge and skills to keep pace with technological advances within their industries. As a result, the Lundeberg School has developed a total program for professional advancement as a boatman or deep sea mariner. This program focuses on three key areas:

- Providing young men who have no maritime experience with the basic skills they will need to serve aboard U.S.-flag ships or tugs and towboats.

- Providing professional advancement for experienced men through career upgrading programs.

- Providing the academic education which is an essential complement to the modern technical skills needed in today's water transport industries.

Since its founding, the Lundeberg School has provided careers for an entire generation of young men and at the same time provided qualified manpower aboard America's merchant vessels whenever and wherever needed to insure that vital cargo moves safely and on time.

Originally, the Lundeberg School maintained training facilities in a number of ports throughout the country. But as the programs expanded to meet the challenges of advancing technology, it became necessary to centralize the training activities. Thus it was in 1967 that the Lundeberg School acquired the present site at Piney Point, Maryland.

By bringing together highly-qualified educators in the specialized field of maritime training, centralization made possible the rapid expansion of the school's vocational programs. Basic training is now an intensive three-month long course of study. Upgrading programs encompass all unlicensed ratings, and a number of licensed officer ratings for inland and deep sea towboats. Specialized courses—in shipboard automation and liquefied natural gas carriers, for example—keep mariners abreast of technological advances almost as soon as they are discovered.

As vocational education became more advanced and specialized, the need for reading skills to master highly-technical instruction manuals became evident, and in 1970 a remedial reading program was established. The program proved to be a highly successful complement to vocational training, and the academic curriculum has since experienced the same rapid growth as the vocational programs. Today, a complete high school equivalency (GED) program is offered as well as evening self-enrichment classes and training in reading and study skills.

In 1972, the Lundeberg School recognized the need for trained personnel aboard the tugs, towboats and barges of the inland and coastal waterways. Again, the school responded to this need, and today basic vocational training and a complete upgrading program in all the licensed and unlicensed ratings are available to America's professional boatmen.

There is a growing interest among labor unions in this and other countries in negotiating educational opportunity fringe benefits for their members and their families. Increasing attention is being given to these negotiated plans including tuition refund plans, education and cultural trust funds, paid educational leave and work sabbatical provisions in union-management agreements.

Within company and union-training and educational opportunity programs, there are potentially billions of dollars available each year for a broad variety of education and training, however, these are not fully utilized. This represents a waste of human and fiscal resources. In the tuition-refund program, for example, there are at least 20 different international unions which have contracts affecting about 2 million workers. The Bureau of Labor Statistics has so far gathered over 60 such contracts. Over 20% of the contracts reviewed by the BLS in 1969 contained education and training provisions. In 1974 approximately 50% has some training provision.

Unfortunately, one percent or less of the eligible blue-collar workers participate in these programs. On the other hand, professional and management level personnel average about 6% to 7%, with a heavy concentration in management education.

Discussion and activity in this field is on the up-swing. Younger workers appear to be more interested in these benefits. Innovative programs are being developed to expand the number of unions who have these agreements. To increase the rate of participation of workers and to find ways in which educational institutions and government can cooperate in this endeavor, a study is now underway. One newly emerging effort is being conducted by the National Manpower Institute in cooperation with labor and management representatives and the National Institute of Education which has begun to research the question "why workers do or do not participate in these educational opportunities seemingly available to them?"

The U.S. Senate Sub-Committee on Education expressed its interest in helping labor and management to develop more effective programs in this area. (The following comes from the Senate Report No. 94-882, Calendar No. 838, 94th Congress, 2nd Session—page 8): "The Committee wishes to make special note of the funds earmarked to develop and demonstrate ways to increase utilization of employer-employee tuition assistance and other similar educational programs and to encourage community coordination to ensure that lifelong learning opportunities are designed to meet projected career and occupational needs and the community."

This committee included an amendment to the Mondale Lifelong Learning Bill which calls upon the Assistant Secretary of Education to make grants and enter into contracts with institutions of higher education and with public and non-profit private entities for the development and demonstration of ways to—

A. Increase the use of employer and union tuition assistance and other educational programs, educational and cultural trust funds and other similar educational benefits resulting from collective bargaining agreements, and other private funds for the support of life-long learning;

B. Stimulate the integration of public and private educational funds which encourage participation in life-long learning, including support of guidance and counseling of workers in order that they can make best use of funds available to them for life-long learning opportunities;

C. Encourage coordination within communities among educators, employers, labor organizations, and other appropriate individuals and entities to assure that life-long learning opportunities are designed to meet projected career and occupational needs of the community.

The foregoing examples of new activity within the house of labor hopefully portends for the future of union members and their families.

Turning to the future, it is important to develop a background of the forces at work which appear to lead to the realities of the 1980's and '90's. They are with us today and they project a rather gloomy picture. Confusion and uncertainty seem to abound everywhere for very sound reasons because of a sense of helplessness regarding our ability to unilaterally shape the world according to our master design.

The facts are that we no longer live in that kind of world. The problem is that too many Americans fear the future and choose to take shelter from the trauma and possibility of scarcity, crisis in the energy field, widespread unemployment and a host of other serious but possible interferences with the "so-called American way of life."

I am concerned that there exists too casual an attitude about global political and economic affairs on the part of most Americans and especially those engaged in long-range planning for our system of education.

How to cut through all of the rhetoric on this subject is the real question. Until a decade ago we rested comfortably with industry projections of skill needs only to watch many of them become obsolete overnight. Rather than re-invent the wheel, see what William Haber had to say in the June 1976 issue of the AFL-CIO *Federationist*.[6] The article excerpted a speech he made to an honors convocation at the University of Michigan earlier in the year. He said:

> It is no simple task to determine how many tens of thousands of engineers are already obsolete. And the question may well be asked about every other discipline. Former HEW Secretary John W. Gardner calls attention to this problem in his book, *The Ever Renewing Society*. The research revolution has changed America as no other single development. It has created a new technology. Automation and the computer have been joined into what has come to be known as continuous automation. Hundreds of thousands of workers have been eliminated from the basic production industry, whose output has not declined.
>
> One of the results has been a revolution in skills and this has gone farther in our own country than anywhere else. Of the more than 90 million persons in the American workforce, only one out of three is engaged in production. He or she is "making" something—a chair, a suit, a table, a brick. Two out of three are not producers. This is not the same as saying that they are unproductive. And the process is continuing. Many millions of Americans now hold dead-end jobs—jobs which have no future and are rapidly disappearing. Those who hold them must adapt themselves to new skill requirements; they must be trained and retrained. Many of these tasks were once respectable bookkeepers, accountants, meter readers or elevator operators.
>
> As a result, I have serious doubts as to whether we ought to teach anything as specific as an occupation. We need to find something that resembles a family of occupations, a cluster of jobs. We need to teach adaptive skills. It has been observed that 50 percent of the 1985 workforce will be engaged on skills and jobs which have not yet been invented or developed. Everyone, whether in production or non-production, needs to be retrained perhaps two or three times in an occupational lifetime. This is no less true for a craftsman in factories and shops than for doctors, lawyers and professors. The obsolescence of knowledge plays havoc with everyone.

This then is the challenge to the education community—a formidable one indeed. No crystal ball or extra sensory perception of the future is available to guide us on the planning and preparation of what specifically should be taught to today's 16, 17 and 18 year olds which would be helpful to them in the 1980's and 1990's. Teaching to adapt is the major theme.

This point is again reinforced by a recent survey, conducted by the National Education Association, of the views of 50 distinguished world citizens and educators.[7] The panelists recognized the hazards, if not the impossibility of over-precise or extravagant predictions. They recognized that not only the U.S. but the world as a whole is passing through the greatest tidal wave of transition in history.[8]

Points of agreement by all can be paraphrased by the following:

- Decades ahead will be extremely complex caused by rapid change;
- Energy problems will persevere and become more difficult (this has serious implications for the future, i.e., employment opportunities);
- We will have to review our concept of growth. Growth will become selective or "reasonable" in the jargon of the 1980's;
- We face continued crowding and hunger among the world population (note that we recently passed the 4 billion mark);
- Third and fourth world pressure for equity and a new world economic order will significantly change the planet's entire political power structure;
- International affairs will remain turbulent in the decades ahead requiring skill in economic and political innovations as we seek to cope with the international chemistry of the years ahead;
- There will be an increase in human welfare but at a high cost (guaranteed annual wage, improved medical care, etc.);
- Lifestyles will change. America may be able to avoid a gray-toned post affluent society by striving now to create a post extravagant era not too difficult from the "wear it and make it do" lifestyles of our grandparents prior to 1920.

Vocational education schools will have to take a fresh look at the special problems of minorities and women. A recent report of the National Urban League strongly makes the point that whatever economic recovery there has been, (labor believes none) there has been no economic recovery for Blacks.[9] The report abstract provides devastating data on employment, family income, family instability and the question of reverse north-south migration due to the severe economic crisis in northern urban areas.

Unfortunately, the prospects are not bright, especially under the philosophy and administration of our current federal government.

Earlier this year, Charles C. Killingsworth, Professor of Economics at Michigan State University addressed the unemployment question in an *AFL-CIO American Federationist* article.[10] The areas contributing substantially to growth in the post-war period, namely auto manufacturing, education, health care, construction and national defense, now show stagnation or decline due to circumstances unpredicted at the peak period (of the late '60s). If future labor requirements diminish to the replacement level, this will have a significant effect on the supply of new jobs in the economy with a relatively short training period ahead for those in education using economic predictors.

What should be taught certainly has to take these problems into account and the whole range of problems facing our Spanish-speaking community.

As women train for employment in the non-traditional occupations, courses relevant to the questions of adjustment to the world of work will be needed for those forced into the job market for economic reasons. Career women would, of course, probably have the same difficulties as men even though they have pre-planned their entrance into the labor force.

Minority youth and women now see more tangible vocational careers via the apprenticeship route.[11] Apprenticeship training can potentially bridge the gap between the unemployed, the potentially unemployed (particularly minorities, youth and women) and available jobs—given a near full employment economy.

Ernest Green adds, "In addition to the benefits that the system offers to the industry and its graduates, apprenticeship training is a sound investment decision. In a study conducted in Wisconsin by Thomas Barocci, the return on the investment in apprenticeship was found to be greater than that for all other noncollege training programs, they have sufficient skills to earn more in their fields and related fields than do all other preparatory facility dropouts, including college dropouts. In fact, construction apprentices who drop out of training earn 70 to 80 percent as much as those who complete training. Industrial apprentices and those in the graphic arts earn 90 percent as much as those who complete training. In addition, most apprentices who become journeymen are union members, and statistics show that union members earn more money than workers in the unorganized sector."[12]

There are specific areas of learning which now appear as imperatives in the vocational and general education curriculum. The number one priority is basic education. The amount of reading to stay abreast, whether newspapers, magazines, intellectual journals, trade union material, etc., required of American workers of all ages has escalated.

Writing and math skills fall into this area of priority. Those who "just pass" should look to tutorial resources if they are serious about competing in the job market of the future or continuing to post-secondary education.

I would add a component of basic economic education also in this category. It is indispensable toward a fuller understanding of the whole world of work if one also understands the dynamics of labor, industry and commerce. Economic illiteracy in this country borders on the abysmal among rank and file citizens. Vocational educators, themselves, should probably upgrade their understanding in this area where necessary.

I would also recommend some basic understanding of the arts, both visual and performing, as part of the high school level curriculum in vocational education programs.

Finally, students should get a full understanding of labor-management relations in the public and private sector of our economy. Labor leaders are often shocked at the numbers of misinformed among PhD's in this field.

The labor education system involving industrial relations majors and trade union leaders has remained viable with substantial growth potential simply because thousands entering today's job market have had little or no exposure to this discipline. Course in labor history, collective bargaining, labor law and related subjects should be introduced to high school students before they reach the job market. Teachers can make good use of the abundance of material, films, etc. already available in this area.

Movement has begun in this area at the post-secondary level, most recently at two-year institutions.

Some 39 four-year colleges and universities have developed major programs in labor studies to meet current demand. The George Meany Center for Labor Studies in Silver Spring, Maryland, represents a substantial investment in training the officers and staff of AFL-CIO affiliates by labor itself.

In conclusion, what should be taught in vocational education can be answered in many ways. Planners should include the local economic conditions, this is to say, the local job market. They should consider citizen mobility. "Johnny won't stay on the farm," therefore curriculum must be broad enough to cover national job projections. They should pay fuller attention to global economic trends as they impact on jobs and careers here at home.

Only through such futuristic concerns can we keep abreast of what should be taught through the rest of this century and beyond.

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134

SECTION IV: SPECIAL NEEDS

MEETING THE FUTURE VOCATIONAL EDUCATION NEEDS OF NATIVE AMERICANS

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When one Indian is given an opportunity to speak for and about all Indians, a painful dilemma ensues, becuase "no one Indian can speak for all Indians." There are over 200 nations, tribes or bands of Native Americans in this country—each differing in language, customs and attitudes, and a Hopi man might wonder at a Lakota Sioux of the Great Plains telling a group of Vocational Education people what educational and employment problems the Hopi of the Southwest Desert have and how those problems might be solved. So I must emphasize that I speak for myself as a Lakota Sioux, influenced by what I have observed and heard from other Indians. I cannot speak for "the" American Indian. There is no such thing, instead there are Hopi, Sioux, Arapaho, Blackfeet, and many others, each with their own ideas on how to develop their natural and human resources.

However, most Native Americans would agree that we have some things in common. Probably Indian Fry Bread would have to head that list, but since this meeting is geared more to future planning that to "learning by doing," a demonstration of how to make fry bread would not be appropriate here. (Although the relative merits of actually learning to make fry bread vs. sitting through a theoretical lecture could be debated.)

Two other common factors readily apparent in most Native American groups are undereducation and poverty. I believe that vocational education has much to offer in beginning to eliminate these two demons that have been with us for over 200 years. The day for studying Indians is past—and that day has been filled to overflowing with the "What" and the "Why," mostly arrived at by anthropologists, sociologists, war departments, bureaucrats, bleeding heart liberals and sometimes even Indians. If we are to survive today we must come to grips with the "How." I will resist the temptation to mention that respect for our heritage and that utilization of our former life style and value system could contribute to preserving this land and its people; and how our (and your) social ills cry out for solution. Instead I will say that preparation for a vocation to make people economically self-sufficient is the answer to "How" to begin to solve our problems. As Dr. Jack Ridley (Shoshone), a professor in Agricultural Sciences at the University of Idaho says so often:

> We know we have social problems, but we are never going to settle our social problems until we take care of the economic ones. Half of our problems socially will be taken care of when we solve the problems of unemployment and when we have employment that is pertinent and meaningful on the reservations. All we have left is our land and we aren't going to have it if we don't get some land management specialists. We need students educated in business. We need land management specialists. We need forestry management specialists—and quit sending us your sociologists, psychologists, social workers and anthropoligsts to teach us *about* Indians. We want meaningful programs for Indians in today's world.

I believe that vocational education is education for today's world and for the world of tomorrow. It is education that can prepare people to live a fulfilled life, so that they are starved neither in body nor in mind.

I cannot discuss the educational needs of Native Americans today and in the future without some reference to our traditional way of learning. Though no Indian today actually lives in the old way, we are still influenced in varying degrees by our background—the felt if not stated heritage that filters down through each generation.

I will briefly mention the education systems of the pre-contact past that taught survival skills; I will also mention where some of us are today as a result of the mission, government and public school education programs that we have been exposed to; and I will attempt a dream for the future: a return to self-determination, control of our own schools, a *choice* in education so that *we* can provide for *our* children the kind of learning that is meaningful to *us* and yet applicable and useful in the twentieth century.

You may think it strange that I refer to the education system of Native Americans of 250 years ago. We had no lesson plans or textbooks, but the system existed nonetheless. There were no hired professional teachers, but instead the whole community was the teacher of the young, and all realized that proper training and right learning from the world around them were vital to the successful operation of the group. Probably no such thing as theoretical learning existed, unless we consider the stories and legends of the oral tradition as theory. There was not sitting in a tipi telling about how to run down a buffalo. There was learning by the example of the leders; there was learning by actually doing; there was learning by constant practise and there was learning by pragmatism—if the learning was successful, it was good. None of this will sound new to you, since good vocational education uses these same methods today. The results of this kind of training were that children learned and learned well what they needed to know to function in their particular role as part of a cooperating group. Each one's learning benefitted all.

Since the early European immigrants saw no proper school houses or books and pencils among the natives they immediately sought to rectify this lack of education. In 1619 the Virginia Company established the first mission school. From that time to the present Native Americans have been subjected to efforts by churches and by government and public schools to "educate and civilize the heathen." (Stan Steiner—New Indians, p. 318). The methods used in each case were repressive and insulting. The Christian religion was emphasized (assuming the natives had none of their own); agriculture was taught (assuming the natives *might* succeed at this); basic education was included (assuming that natives could aspire no higher because of limited intelligence). In government residence schools as late as the 1940's only one-half day was used for academic studies; the rest of the day was spent at something called manual training. For girls this meant cooking, sewing and other household arts; for boys it meant farming, woodworking and hauling coal to the power plant. All of this unpaid labor helped to keep the government schools operating more economically. The result of this forced manual training has been to prejudice many Indians against non-academic learning since it was based on the assumption that they were capable of no other.

With the entry of a few Indian children into some public schools where they were exposed to the regular education system, our situation did not improve. Coupled with the lack of career education that is common to all school children, our children were subjected to lack of understanding of the culturally different child at best and actual discrimination at worst. Consequently the running away and desparate attempts to get back to home and parents many miles away that began in mission and government schools, continued as an astronomically high drop-out rate in public schools. Our

children were no longer being educated by parents, who had been convinced that they really had nothing worthwhile to offer the young, nor were they being educated by the system which viewed them as incorrigible or uneducable.

An outstanding example which illustrates what is possible when a people are given examples to follow and freedom to institute suitable accommodations to change, are the Cherokees in the early 1800's. These people took advantage of the new methods and new materials brought by the white man, and proceeded to create a self-sufficient and successful life style incorporating the best of the new while retaining the best of the old. They were financially successful farmers, had an efficient form of government, had developed their own school system using their own language and had become completely "civilized" in the white man's usage of the term. All this because Cherokees were independently planning and administrating their own affairs. I need not continue their story. Everyone is familiar with the tragic "Trail of Tears," the uprooting to the Cherokees from the homes and businesses because new settlers wanted the free land in Georgia.

An outstanding example which illustrates the complete failure of well meaning attempts for governments to do things *for* people with no consultation with or input from the people concerned, is the Bureau of Indian Affairs' Relocation Program of 1952. The relocation program was designed to provide the means whereby Indians could leave the economically depressed reservations and go to an urban area where jobs were plentiful.

The Indian family or single adult was transported to certain cities where the Bureau of Indian Affairs had established relocation field offices to receive them. Field office staff provided general counseling to the relocatees and assisted them in finding employment and housing. Financial support was provided until the relocatee was employed and receiving wages.

It soon became apparent that the undereducated, poorly trained Indian with his rural background and cultural differences had not been adequately equipped to compete in the labor market or make an adequate social adjustment to his new environment.

As a result of these deficiencies, between 1953 and 1957, three out of ten relocatees returned to the reservation in the same year they had been relocated. There are no statistics to show how many eventually returned, but the rough estimates run as high as 75 percent. A follow-up study conducted by the BIA in 1968 of Indians relocated in 1963 indicated that only 17 percent were still in the area to which they had been relocated.

The general failure of the relocation program to achieve the objectives for which it had been established had a major impact on vocational education in the BIA schools. Because of the shortcomings of the high school vocational programs this training was, in theory, eliminated. Beginning in 1963 only pre-vocational education would be offered.

The Relocation Program was not without effect on the Indian people. Once again they had been manipulated to failure. This did nothing for the image of vocational education specifically and for federal programs generally.

Present trends and attitudes among Native Americans are the result of all of these contributions from the past, from the autonomous, pragmatic training of pre-contact days to the forced manipulating by a sometimes well-intentioned, but always ill-informed bureaucratic machine in far-off government halls. The demand for education for Indian children planned and administered by Indian tribes is loud and emphatic. As Alvin M. Josephy, Jr., the noted historian, said in 1969 at the Sub-committee Hearings on Indian Education:

> Indians have long asserted, but usually to deaf ears, that the individual tribes knew better than the government what kinds of programs they needed and wanted, and that if they could play decisive roles in the planning of such programs, they could, with technical and financial assistance, demonstrate an ability to learn quickly, to administer, and to execute them successfully. * * * This assertion was stated forcibly in a "Declaration of Indian Purpose" by some 420 Indian leaders of 67 tribes at a gathering in Chicago in June 1961, but * * * it received no serious recognition or encouragement from the Bureau of Indian Affairs.

The demand for a choice in the kind of education wanted by Indian students is also being heard. What they hope for is a job at the end of their preparation period. An increasing number of students realize that decisions made for them on the basis of stereotyping and generalizations lead neither to success nor satisfaction.

Some visible results of these demands are the United Tribes Vocational Technical Institute of Bismark, North Dakota, the adult and vocational education programs offered at the Indian community colleges now established on several reservations and the Indian controlled elementary schools on the Navajo and other reservations where parents are involved and are making education decisions for their schools and children.

The present popularity of professional courses (especially law courses) among Native American students at universities shows a backlash resulting from 200 years of being told that Indians work well with their hands. The successful graduates from the halls of academia have been proud to prove that Indians can work well with their heads, too. But Indians, along with the general public, need re-educating regarding vocational education. The dichotomy of hands vs. heads must be dispelled on reservations as well as in non-Indian cities and towns. Of importance is to provide the opportunity and the information for students to make choices that will lead to a productive and satisfying life style. It appears, then, that *choice* is the important element in both areas of greatest need for Indians and their education. Parents need to have a *choice* in operating their children's schools, and Indian children need to be properly informed about the *choices* available to them in education.

That these two needs have been ignored in the past is apparent through our brief glimpse of previous education efforts. That these previous efforts have been a dismal failure is apparent when we consider the eighth grade average education level of Indian people and when we observe the 50 to 70 percent average drop-out rate of Indian students in government and public schools. Last year in a small off-reservation town in Southern Alberta, 40 percent of the elementary school children were Natives. If present conditions persist only three percent of the total graduating from the twelfth grade will be Natives. Similar situations exist all over the U.S.

Future considerations for vocational education for Indians can only be considered in conjunction with upgrading the quality of general education for Indians. There would be no point in super-imposing an ideal vocational education program upon a crumbling and cracking foundation. However, for the purpose of this paper let us assume an optimistic stance and consider the failures of the past corrected or at least mitigated. What then might we plan as the best way of meeting the vocational education needs of Native Americans in the future?

It is easy to slip into exotic dreams for future vocational education programs when we consider some of the pressing problems of today—preserving the environment, solving the energy problem and travelling to the moon. However, to benefit Native Americans most we must first concentrate on a "catch up" policy. Because of inadequate elementary preparation, Indian students do not approach vocational education programs (nor academic programs) at the same level as students from the mainstream of society. Consequently, the following suggested needs may seem obvious and in many cases will have to be preceded by intensive basic education and make-up courses.

Through my contacts with Native Americans throughout the country and as a former member of the National Advisory Council on Bilingual Education and the Washington State Advisory Council on Vocational Education, I have put together the following list of needs as basic to an improved approach for vocational education on reservations and in Indian communities:

1. *Improvement of Vocational Education Image*

Although the vocational education image has improved generally in recent years as shown by the numbers served, the numbers completing programs and the larger amounts of funding appropriated by Congress, the Native American communities and society in general continue to view vocational education as a second rate education, or as Vine Deloria (Lakota-Sioux lawyer-writer) says, "a benign form of welfare."

To correct this hang-over from the past it will be necessary to launch informative public relations campaigns—first, to prepare teachers and counselors to present the true picture of vocational education and all the opportunities offered under that term, minus the academic snobbery and delusion that an academic degree provides the only way to success, financial and otherwise; and second, to offer courses to students, from K to infinity to inform them of the many choices open to them in the "world of work" and the relative benefits to be found in each.

Vocational education counselors need to be true resource people. They need to have had first-hand experience in some vocation. They need to know about careers—especially vocational education careers. No ivory tower scholar can meaningfully advise a student about some 80 percent of the jobs available in our society that do not require a university degree.

The public relations campaign could include the press, radio and television. Mobile career education units might visit on and near reservations. Native American models who have successfully completed vocational education training programs, native vocational education instructors and native businessmen should be used to reinforce these efforts.

2. *Inclusion of Native Americans in Planning and Policy Development of All Vocational Education Programs that Affect Native American Communities*

Only recently have a few Native Americans been consulted and included in the decision-making process that affects their communities. Until Indian people are allowed a voice in expressing their needs, and are allowed to make recommendations for solving their problems none of the programs will be meaningful.

The National Advisory Council on Vocational Education has one Native American member—Warren Means (Lakota). The Washington State Vocational Education Advisory Council has one Native American member—Tony Hollow (Assiniboine). These two members have made a noted contribution to the cause of vocational education for American Indians, but more input is needed. I see as ideal, a National Native American Vocational Education Committee with 12 to 15 members representing various regions of the U.S., who would be informed about the needs of their community and the vocational education programs available. This committee should include a research and development unit that could provide forecasting, planning and recommending—after consultation with Community Action personnel and grass roots people.

3. Long Range, Direct Funding for Native American Vocational Education Programs

For too many years funding of Native American programs of all kinds have been in one, two or three year cycles. The frustrations resulting from this practice are so obvious as to hardly need mentioning. Besides the constant, harried submitting of proposals for the next year, all too often programs are terminated just when they are beginning to function properly. At times money for equipment and materials has even arrived after the program has been closed down.

In 1974 the Washington State Educational Professional Development Office provided funding for a Vocational Teacher training program through Central Washington State College for fifteen Native Americans who were already proficient in some vocational skill. The coordinator, counselors and an advisory board were all Native Americans. This program has since been extended to five states, but with less federal funding per state than the original one-state project. The initial grant for the Washington State program was $30,000. In 1976 only $60,000 was provided by the U.S. Office to extend the program to ten states. Since this was obviously ridiculous—even to the "Feds" in Washington, D.C.—the Washington state EPDA office agreed to attempt a five-state program with this amount. For the coming year the federal office of vocational education is considering a grant to the state of Oklahoma for less than $40,000 to operate a similar program in 15 states. It would seem obvious from the above figures that (1) these kinds of appropriations are only tokenism, or (2) some people in federal offices need remedial courses in arithmetic.

Long term adequate funding, for five, ten or even twenty years, would eliminate the time-consuming hassle with proposal writing and provide continuity and time to improve. It takes time to develop any good vocational education program; this is especially true in an Indian community where the vocational needs have not previously been assessed and where industry and business are just beginning to be instituted. It may also take time to motivate people to take advantage of vocational education opportunities on their own turf.

Native Americans, as well as others, in new experimental programs need time to make mistakes, benefit from these mistakes, then proceed in improved ways.

4. Native American Vocational Education Instructor Training

Through their own efforts and in some cases through training provided prior to attempts at relocation, many Indians have become skilled craftsmen. Few of these people realize that with further teacher training they could become vocational education instructors. An active recruitment effort should be carried on at the vocational education teacher training institution in each state to inform qualified people of these opportunities, and to provide the necessary support services needed to complete the training. State Educational Professional Development programs should provide financial assistance for upgrading these potential vocational education teachers. Presently there are not more than a dozen Native vocational education instructors with degrees in the U.S. and these kinds of people are needed in their tribal communities as models. Most of these people are involved in other areas of education off reservations due to the present high demand for Native Americans with degrees.

Indian students benefit from having teachers from the Indian community as models. This has been proven by sharply decreased drop-out rates in classrooms where Indians teach Indians. Indians still learn best by example, and "consciousness of kind" is no empty phrase. This is not to say that Indians will learn only from other Indians. As in the case of all of us, the whole community in which we live becomes the teaching agent.

138

5. Alternative Vocational Education Programs

In the past, vocational programs have been aimed at the general public, with little consideration for cultural differences. Future programs for Native Americans should include provisions to deal with the differing value systems which result in absenteeism and what appears to be a lack of response, cooperation and dependability. In the case of Native Americans, fitting the school to the student rather than expecting the student to fit the pre-determined mold of the school (a philosophy that mainstream educators espouse, but find difficult to enact) would eliminate many of the problems of attendance and lack of interest. Indian priorities may seem strange to you, but the work ethic and the scramble to pile up material goods are foreign to traditional Indian thinking. The Native American student or worker who is often late or absent because he is attending grandmother's funeral or helping in some Indian rites or gatherings is unreliable and irresponsible in the eyes of the world, but he is reliable and responsible in the eyes of his own people. Some notable successes have occurred when industries have arranged flexible schedules and utilized work sites on Indian reservations.

An example of beginning awareness of the differing needs of other ethnic groups was the appropriation of money by Part J of the Vocational Amendments of 1973 to provide Bilingual Vocational training. Few if any Indian tribes have been able to take advantage of these monies, since many Indian children learn English as a first language. What people in government seem to ignore is that some Indians do speak only their native tongue and that those who do not are often not proficient in the English language, and that even those who speak English live in a totally different cultural milieu. Future appropriations would benefit Native Americans more if the term bilingual became bicultural for the purposes of this amendment. Language is only one aspect of differing cultures that deserves special consideration.

Since Indians and their reservations are unique on the American scene there exist unique needs in vocational training for them. Besides needing training in the many technological fields necessary for twentieth century living, Native Americans have needs peculiar to their culture and/or location.

It seems that formal training must now be provided if the fine native arts and crafts skills from the past are to be preserved. The aesthetic loss would be to the world if no more Navajo blankets or Kwakiutl wood carvings were produced. More generous funding and recognition of the importance of native crafts, with educational institutions providing training on reservations, must be part of future planning. Indian artists and artisans who can teach these skills are rapidly becoming scarce. The efforts in this direction that are in effect now must be encouraged and enlarged upon.

6. Development of Tribal Resources

The location and life way of the Lummi people of Western Washington has resulted in a vocational training program that successfully accommodates an Indian life style with modern technology. The Lummis have become "fish farmers," through an operation planned and operated by the tribe. Training for the technical and biological skills is provided by nearby colleges. Many of the trainees are adults who attended adult basic education classes, before they could progress to the more technical areas. The future should see more combined efforts such as this.

The proper management of land and water has assumed crisis proportions on Indian land. Too often decisions are made by insensitive and ill-informed bureaucrats. Tribal members trained in these fields are needed to prevent the erosion and loss of these vital resources. A few recent decisions by the government as in the case of the Taos Pueblo and Blue Lake and the Yakimas and Mt. Adams, have indicated some change in the emotional climate regarding Indian land and water, but having Indian experts in these fields to knowledgeably plead the cause (we hope) increase such favorable decisions.

Because Indian reservations differ greatly in climate and terrain, a variety of land management courses appropriate to the particular reservation should be available. In forested and mountainous areas the people should be trained in forestry and mill management, parks and recreation management and environmental control. If the tribal land is suited for farming, courses in agriculture, agri-business and animal husbandry should be provided. (The Nez Perce did quite well in breeding Appaloosa horses—even without formalized training courses because it was an activity near to their heart.) Training courses should be offered to tribal people on or near their own land and they must be meaningful. Training people in desert irrigation for Arizona would not benefit a tribe in the rain forest of Washington state.

Housing on all reservations is shockingly inadequate, and whenever housing construction takes place it is done by non-Indian companies and workers—except for a few self-help efforts of recent years. More training is needed to prepare Native Americans to become building trades craftsmen, in addition to business and management training so they can form their own construction contracting companies. It makes no sense for outside workers to come onto reservations to work for months while Indian men are idle for lack of training. As proof that Native Americans can excel in construction work consider the fame of the Mohawk steel workers who work all week in the city's canyons then hurry home to their reservation for the week end's Indian activities.

The situation in Indian health is equally bleak. There are few Native American medical technicians and even fewer doctors. Public health hospitals on reservations could provide infinitely better and more satisfying services to native people if they had natives on staff. Indian students need to be informed of the vocational opportunities in the medical technical field. Good career counseling would provide this information and help to convince young people that medical positions are not unattainable.

Many Indian reservations have recently built large community centers where cultural and adult education classes are held, usually under tribal auspices. These beginnings need support from and tie-ins with nearby educational institutions. These on-site locations would be ideal for many vocational classes as well as numerous pre-vocational classes. These community centers, in many cases, show signs of becoming the heart of the community. People gather there for whatever services are offered and for the inevitable socializing. What better spot could be utilized for training classes? Already the hurdle of going to a strange and forbidding place has been overcome.

In summation—if:

1. The image of vocational education is improved and our country's educators include career and vocational education equally with academic education,

2. Native Americans are included in all planning and policy development,

3. Long range, direct funding to Native American populations becomes a reality,

4. More Native Americans become vocational education instructors,

5. Alternative vocational education programs are geared to Native American communities,

6. Native Americans are given the *choice* of developing their tribal, natural and human resources; we vocational educators will be contributing to the "How" of improving Native American vocational education programs.

If, in the future, a National Indian Vocational Education Committee is ever formed, then suggestions and plans for future improvement of vocational education for Native Americans would come from long and diligent research by professional people—and the results would be more concrete and scientific than the visions, hopes and dreams of a lone Indian.

THE IMPLICATIONS OF THE FUTURE PARTICIPATION OF MINORITIES AND WOMEN IN VOCATIONAL EDUCATION PROGRAMS

Carol Gibson

It took this new nation more than 240 years to decide that separate but equal schools were permissable and another 100 years after that to legally declare that separate but equal was in fact unequal and therefore unconstitutional. We have all been witnesses to the dismal contemporary chapter of this historical saga. The halting and agonizingly slow pace of this nation's progress towards equal educational opportunity for minorities has in no way diminished the perceived value of education in the eyes of minority groups. Despite the Jencks, Jensens, Moynihans, etc., minorities clearly understand that education is inextricably bound up with the struggle for freedom from second-class citizenship, and as such, equal access to educational institutions has been and will continue to be pursued with determined vigor.

But the history of minorities and women in this nation—particularly with reference to theories of educability is marked by a continuous struggle for more and better education for more people. In the battle between the educational have and have nots, every gain is countered by another obstacle to the realization of its full benefits. From an historical perspective we must acknowledge that the low level of minority participation in voc-ed has a "Catch-22" characteristic. Because minority group leaders understood so clearly the role of education in the struggle for freedom and equality, some were not as visionary or as futuristic as might have been desirable.

It is not possible for us to examine the future of women and minorities in vocational education without at least a cursory examination of their historical participation within education in general—vocational education in particular. At this point I must note that any serious student of the history of vocational education institutions and the historical growth of the movement and its significance for minorities must read: "Black Vocational Technical And Industrial Arts Education Development And History," by Dr. Clyde W. Hall who is the Chairman of The Division of Technical Sciences at Savannah State College, Savannah, Georgia.

In the midst of all of the Bicentennial celebrations, it seems easy to forget that the uprooting of a people and re-settling them in this nation against their will more than 350 years ago left scars within this nation imprinted deep enough to significantly influence yet today the nature of our minority-majority relationships. Involuntary servitude which soon became the permanent condition for blacks in this new land, brought with it customs and laws that prohibited slaves from learning to read and write. The denial reinforced by a heritage which placed value on communication and industrial skills along with a great respect for facility in learning, planted the seed for the long and arduous quest for education by Black Americans, a struggle which has been paralleled by every other minority group in this nation.

Perhaps in terms of all minorities the classic public debates between Booker Talifero Washington, and William Edward Burkhardt Dubois best puts this dilemma into an historical perspective. There is a poem by Dudley Randall entitled, "Booker T. and W.E.B.," which is a parody of the well known work of Langston Hughes, that I'd like to share with you at this time.

BOOKER T. AND W.E.B.

by Dudley Randall

(Booker T. Washington and W.E.B. Dubois)

"It seems to me," said Booker T.,
"It shows a mightly lot of cheek
To study chemistry and Greek
When Mister Charlie needs a hand
And when Miss Ann looks for a cook,
Why stick your nose inside a book?"

"I don't agree," said W.E.B.
"If I should have the drive to seek
Knowledge of chemistry or Greek
I'll do it, Charles and Miss can look
Another place for hand or cook.
Some men rejoice in skill of hand,
And some in cultivating land,
But there are other who maintain
The right to cultivate the brain."

"It seems to me," said Booker T.,
"That all you folks have missed the boat
Who shout about the right to vote,
And spend vain days and sleepless nights
In uproar over civil rights.
Just keep your mouths shut, do not grouse,
But work, and save, and buy a house.

"I don't agree," said W.E.B.,
"For what can property avail
If dignity and justice fail?
Unless you help to make the laws,
They'll steal your house with trumped-up clause,
A rope as tight, a fire as hot,
No matter how much cash you've got.
Speak soft, and try your little plan,
But as for me, I'll be a man."

"It seems to me," said Booker T.—

"I don't agree,"
Said W.E.B.

We now know that both men were right. We have now come to realize that we were wrong to have assumed that in terms of a philosophical truth that the two men were arguing an "either" "or" proposition. We have not focused enough on the similarities in the premises from which these two men spoke. Listen to Booker T. Washington:

> Few people who were not right in the midst of the scenes can form any exact idea of the intense desire which the people of my race showed for education. It was a whole race trying to go to school. Few were too young, and none too old, to make the attempt to learn. As fast as any kind of teachers could be secured, not only were day schools filled, but night schools as well.

Compare those words with these of W.E.B. Dubois:

> The eagerness to learn among American Negroes was exceptional in the poor and recently emancipated folk. The very feeling of inferiority which slavery forced upon them fathered an intense desire to rise out of their condition by means of education.

The quest for education and strong belief in its ability to provide the definitive route out of second class citizenship continues until today. Indeed the 1970 census revealed interesting gains for blacks in an absolute sense. Among all blacks educational attainment nearly doubled since 1940, from 5.7 years of schooling to 10.3 years in 1970. On a relative basis the historic gap between black and white levels has closed to a moderate degree. The 1970 data further indicate that the gap is closing much faster at young age levels. Among whites aged 20-21, the median educational attainment level is 12.8 years. For blacks in the same age range it is 12.4 years, or less than a six month differential. The decrease in the gap between the educational attainment levels of blacks and whites (particularly in the 20-21 age group) is symbolic of all minorities and is given proof that the strong historic belief which minorities have invested in the importance of education has been firmly transmitted to our young. But even so, we have had only small numbers of people who beat the system and got a college education and large numbers of people swamped by the system and relegated to marginal economic existence. Larger numbers of minority youth are in college than ever before and we must continue to create the kinds of learning environments and support services to encourage more to continue their educations. Until all minorities achieve the same proportion of college and university graduates as whites we must fight to close the gap. I must stress this because the hue and cry about the overabundance of college and university graduates on the job market is not accurate in relation to minority group members or for women. But even among whites, only about a quarter of the white college age population is enrolled in college, so even if minorities do achieve parity with whites in college participtiion, what happens to three out of four minorities who won't go on to college?

This is a question that must concern us here today because it is one which is essential in helping us to give the Booker T. Washington and W.E.B. Dubois debates a new perspective. By rejecting vocational education programs, we have played directly into the hands of the racists that don't want us in skilled jobs and in strong unions. We have played right into the hands of those who want to keep us unskilled and in marginal occupations. This economy has been called a postindustrial economy with job opportunities shrinking in the traditional industrial sector and mushrooming in the new high technology fields that require technical training. Minority group leaders must begin to understand that this training *can* be achieved in vocational high school programs or in some form of junior college or other post-secondary institutions.

Minorities have been excluded from meaningful participation and policy level positions in vocational education and to some extent it is because we have not aggressively sought access to the full range of voc ed opportunities.

We cannot let ourselves become blinded by the past record of racism of such institutions to deny to our youths the acquisition of skills training that will enable them to compete in our futuristic technological job market.

Minority groups cannot write off those institutions that have operated in sexists and racists ways in the past. Phyllis McClure of the Legal Defense Fund has provided us with ample evidence which suggests that women and minority groups must aggresively assert an interest in these institutions and more to gain access, accountability and a degree of control over their management. We must not allow out-moded notions about voc ed to be used against us in a Catch-22 fashion close off access to future jobs in computers and electronics.

As we look to the future it is clear that women and minority groups will need to be positioned so that they can have a voice at the decision making level which has allowed the sophisticated computer science facilities to be built in the suburbs—while the practical nursing programs are placed in the inner city. I was once a participant in a minority conference on career education and heard a gentleman from California state:

Un gatito que ha sido que nado por leche caliente soplara sobre cujada requeson.

Kitten who has been burned by hot milk will blow on cottage cheese.

The specific issue at hand was career education—and the gentleman was speaking with reference to the chicano community's initial attitude towards the then new concept of career education. I think the phrase has relevance today, because it cannot be assumed that a change in the attitudes of minorities and women about voc ed is all that is required.

In spite of research findings which cast doubt on its validity the cultural deprivation explanation appears to have had profound and widespread influence on educational policies and practices. Probably one of the most important reasons for the rapid, wide and uncritical acceptance of this explanation of the academic retardation of low-status children with a "scientifically" respectable explanation or rationalization for the existing levels of educational performance armed with the variety of forms of cultural deprivation explanations, those who are responsible for the schools attended by low-status children have very effectively excused themselves from being held accountable for what otherwise would be an intolerably low level of general educational efficiency.

Voc ed programs and institutions which have established prerequisite academic admission requirements for enrollment must be examined to determine the extent to which there is a relationship between admission criteria and skill training which justifies the continuance of such standards. In cases where the standards are in fact justified, the voc ed community must become more creative. For example—The Upward Bound Program tries to help secondary school students with academic talent, who have been held back by economic cultural and educational deprivation, to reach college. It includes a full-time summer program as well as follow-up programs during the school year to keep these students college bound.

I am in total agreement with Dr. Clyde Hall of Savannah State College, in Savannah, Georgia, who has suggested that there is a need to examine the possibilities of providing federal resources to an "Upward-Bound like program" which would be designed to help secondary school minority and female students who have talent, and undeveloped skills, and who demonstrate the ability to increase their academic skills, commensurate with the acquisition of improving their talents and refining salable skills. Thus, students could be helped to reach technical schools and junior colleges and would receive guidance counseling services which in terms of occupational information and career awareness, would be designed to provide upward, diagonal and lateral mobility.

The conclusions of a report by C. Shaefer, M. Lewis, and J. Kaufman, published in 1967, based on a 1964-1966 study, state in part:

> In recent years, the vocational experience of women has been receiving increased attention. In the past there was a tendency to believe that women were only a part of the labor force until they married. It is now recognized that to an increasing degree, women are either remaining in or re-entering the labor force, except for brief periods during the child-bearing years. The old and weak argument that training given to young girls is wasted has less weight at this time than at any period in the past.
>
> In the light of this trend, how adequately have young women been trained to prepare for and control their employment experience? Much of the data necessary to answer this question has already been presented . . . and, in general, it appeared that girls were being prepared adequately for the narrow roles that society has set for young women . . .
>
> The evaluation of the vocational programs in the schools criticized the limited number of vocational options open to females, especially in the trade and industrial programs. This is the fundamental weakness of the vocational offerings for females. In effect, society through its schools, tells young girls who do not plan to go on to college, that they are not capable of obtaining and holding jobs other than as clerks and secretaries. Although this condition would seem to stifle aspirations and to induce frustration, young women do not seem to respond in these ways apparently because their vocational self concepts are so limited by the cultural conditioning to which they are exposed that they see very few occupations as appropriate for them. . .
>
> The female respondents who did not expect to go on to college selected their high school courses namely to prepare for jobs. Few made decisions on the basis of interest in the courses. Most discussed their course choices with guidance counselors, but they did not discuss their job plans. These plans were highly concentrated in a few occupations that society deems appropriate for women.
>
> When the favorable and unfavorable evidence is added up, vocational education does appear to be doing an adequate job, but it is being restricted by the prevailing stereo-types as to the proper occupations for women. These are the same stereo-types that restrict the vocational self concepts of young girls. Few jobs are perceived as appropriate, and even these are considered subsidiary to the real female roles of wife and mother.
>
> It has been established for some time that there are no basic differences in intelligence between the sexes. When given the opportunity, women have proved they can handle almost any job that a man can. With the increasing demand for highly skilled individuals, society cannot long afford the waste of human resources caused by the prevailing limitations on the utilization of female abilities.

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20. DuBois, W.E.B. *Education and Work.* Commencement Address delivered at Howard University, Washington, D.C., June, 1930.

Abstract: In this essay DuBois compares and analyzes the unique contributions of Negro industrial training in the United States and the Negro colleges. He further outlined a course for the development of each based on his projections for world economic growth.

21. Ekberg, D. and Ury, C. "Education for What?" – A Report on an M.D.T.A. Program. *Journal of Negro Education, 37,* Winter 1968: 15-22.

Abstract: An evaluation of the success of two Manpower Development and Training Act (MDTA) Programs carried out in Oakland, California and each lasting for a period of 30 weeks. According to the authors, the difficulties encountered were mainly the fault of the "program's assumption that white middle-class values of work, honesty, the importance of time and individual responsibility can be transmitted to the Negroes of the ghetto."

22. Employment Standards Administration (DOL), Women's Bureau. *Careers for Women in the 70's.* 1973.

Abstract: Women's opportunities for employment will be directly related to their level of skill and experience but also to the labor market demands through the remainder of the decade. The number of workers needed for all major occupational categories is expected to increase by about one-fifth between 1970 and 1980, but the growth rate will vary by occupational group. Professional and technical workers are expected to have the highest predicted rate (39 percent), followed by service workers (35 percent), clerical workers (26 percent), sales workers (24 percent), craftsmen and foremen (20 percent), managers and administrators (15 percent), and operatives (11 percent). This publication contains a brief discussion and employment information concerning occupations for professional and technical workers, managers and administrators, skilled trades, sales workers, clerical workers, and service workers. In order for women to take advantage of increased labor market demands, employer attitudes toward working women need to change and women must: (1) receive better career planning and counseling, (2) change their career aspirations, and (3) fully utilize the sources of legal protection and assistance which are available to them.

23. Evans, R.N. and others. *Education for Employment: The Background and Potential of the 1968 Vocational Education Amendments.* University of Michigan, Institute of Labor Industrial Relations, 1969.

    Abstract: How the Amendments of 1968 expanded the definition of vocational education, freed it from many strictures, demanded comprehensive planning of programs from the States and strengthened the role of the federal government in implementing plans. The administrative shortcomings of VEA of 1963 are also discussed.

24. Farning, M. Some Variables Why So Few Black High School Graduates Attend Post-High School Area Vocational Schools. *Journal of Industrial Teacher Education,* 1972; *10; 1;* 5-12.

25. Garbin, A.O. and others. *Problems in the Transition from High School to Work as Perceived by Vocational Educators.* The Ohio State University, The Center for Vocational and Technical Education, 1967.

    Opinions of outstanding vocational educators from various geographical regions of the U.S., in regard to the social and psychological problems faced by youth adjusting to the world of work. Of the 49 specific problems identified, 40% of the educators cited these: (1) unrealistic aspirations and expectations; (2) poor attitudes toward work and working; (3) lack of responsibility, maturity and self discipline; (4) lack of knowledge of the ral demands of work.

26. Griessman, B.E. and Densley, K.G. *Review and Synthesis of Research on Vocational Education in Rural Areas.* The Ohio State University, The Center for Vocational and Technical Education, 1969.

    Abstract: This work is divided into two parts. The first is entitled, "A Sociologist's Perspective of Vocational Education," and the second part is called "Vocational Education in Rural America: An Educator's Perspective." A comprehensive bibliography of all research reviewed is to be found on pages 70-84.

27. Grubb, W. N. Rally Round the Workplace: Continuities and Fallacies in Career Education. *Harvard Education Review,* November 1975: 451.

    Abstract: The author says that career education is basically a reconstitution of vocational education and is likely to replicate its failures. Secondly, he argues that the assumptions career

educators make about education, work and the labor market, are erroneous, and he presents a variety of evidence to support his statement. The author concludes that the ills career education proposes to solve; unemployment, underemployment and worker dissatisfaction, are intrinsic to our economic system and, consequently, that career education is a hollow, if not an insidious reform.

28. Hillson, M. and others. *Education and the Urban Community: Schools and the Crisis of the Cities.* American Book Company.

Abstract: This selection of 49 articles deals with the crisis and conflicts of urban education. Articles discuss the impact of urbanization, social stratification, the effects of urban poverty on black and Puerto Rican families, and the disadvantaged school dropout. Many articles deal with proposed solutions. Among these are readings which discuss the technology necessary to make both curriculum and school organization more relevant to the needs of inner-city youth. Curriculum changes proposed include ungraded classes and bilingual education. The school's role of making employment opportunity available, youth alienation, the problems and complexities of federal aid to education, and aspects of school community relationships are also treated.

29. Journal of School Review. *Head and Hand in Vocationalism: Vocationalism vs. Professionalism,* May 1975: 397.

Abstract: The historic split between head work and hand work characterizes the teaching and learning processes since antiquity. The author says that this split is a super-structural response to the division of labor, on one hand, and the emergence of class society on the other. Further, the modern system of education has tended to exacerbate rather than resolve this schism.

30. Journal of School Review. *Toward Full Equality: More Job Education for Women,* February 1976: 181.

Abstract: While school and college enrollments have been leveling off, vocational education has been booming. State vocational and technical education enrollments increased from roughly 7.5 to 11.6 million from 1968 to 1972. Even exceeding the growth in enrollment, funding for vocational education has increased massively. The author states that despite the very considerable growth, the needs of women for vocational education has not been given serious attention.

31. Katc, A. ed. *Occupational Education: Planning and Programming.* Stanford Research Institute, 1967; 2 vols. At head of title: "A Research Study Prepared for the U.S. Office of Education."

Abstract: These two volumes contain the results of surveys made in six states and eleven communities, plus proceedings of a conference. The identification of objectives and goals of vocational education are presented in volume I. Statements on program structure, benefit and cost analysis, evaluation and organization appear in the second volume.

32. Kaufman, J.J. and Lewis, M.V. *The Potential of Vocational Education.* A National Association of Secondary School Principles Bulletin, February 1969, v. 55: 1-22.

Abstract: The authors believe that "vocational education has the potential for making the school experience relevant." However, much must be accomplished before this is realized, and this includes replacing old styles of administration, designing and testing new types of programs.

33. Kaufman, J.J. and Lewis, M.V. *The Potential of Vocational Education: Observations and Conclusions Based on a Study of Three Selected Cities in Pennsylvania.* The Pennsylvania State University, The Institute for Research on Human Resources, 1968.

Abstract: Vocational education and occupational training in three city public secondary schools were studied. The cities remain unidentified and are designated simply as small, medium-sized and large. Partial contents of chapters: Vocational Education and Educational Opportunities, Evaluation Education Programs, Employment Experience of Graduates.

34. Kievit, M.B. Social Issues Confronting Vocational Education. *American Vocational Journal*, December 1971; *46; 9*: 15-17.

Abstract: The essay examines the conflicts between the social and political needs of individual members of the society and the overriding ever present economic realities.

35. Koontz, E.D. *Plans for Widening Women's Educational Opportunities.* Department of Labor, Women's Bureau, March 13, 1972.

Abstract: The paper focuses on nonlegal plans for promoting women's educational opportunities and for overcoming institutional and psychological constraints that are discriminatory. The areas covered in this discussion include: Continuing Education Programs; The Open University and External Degrees; Education for "Nontraditional Professions," Career Education; Emerging Occupations; and Attitudinal Changes. The author believes that all levels and many aspects of education must be involved if changes are to be made in women's educational opportunities.

36. Law, G.F., ed. *Contemporary Concepts in Vocational Education: The First Yearbook of the American Vocational Association*, 1971.

Abstract: A compilation of writings dealing with various contemporary aspects of vocational education. Topics are divided into ten groups. Partial list: "Philosophical Aspects of Vocational Education"; "Equipping All Persons for a Productive Life"; "Schools, Programs and Systems: The Delivery of Vocational Education"; "Evaluation, Accreditation and Accountability in Education."

37. Lecht, L.A. *Manpower Needs for National Goals in the 1970's.* Praeger, 1969.

Abstract: A study undertaken by the Center for Priority Analysis of the National Planning Association. In Chapter Seven, "The Implications for Education and Job Training" (p. 100-119), a discussion is given of the present role of vocational education, and its adequacy in providing job training.

38. McMurrin, S.M. *Functional Education for Disadvantaged Youth.* Committee for Economic Development, 1971, (Supplementary Paper No. 32).

Abstract: Contains four papers by Ralph W. Tyler, Garth L. Mangum, Seymour L. Wolfbein and Howard A. Matthews. These papers were commissioned by the Committee for Economic Development as a part of the general study in Urban Education which resulted in the policy statement called Education for the Urban Disadvantaged: From Preschool to Employment (see entry under title).

39. Mangum, G.L. *Reorienting Vocational Education.* Institute of Labor and Industrial Relations, 1968.

Abstract: "This evaluation of the results of the Vocational Education Act of 1963 is part of a larger project to evaluate federal manpower policies and programs directed by the author under a grant from the Ford Foundation." Contents: "Origin and Achievements of the 1963 Act"; "The Status of Vocational Education"; "Innovation in Vocational Education"; "Reorienting Vocational Education."

40. Marland, S.P., Jr. Career Education: Every Student Headed for a Goal. *American Vocational Journal, 47,* March 1972: 34-36+.

Abstract: Assessment of career education, and the role of the U.S. Office of Education in achieving the goals of such training, as described by the U.S. Commissioner of Education.

41. Maslow, A.P. *Job Factors, Attitudes and Preferences Affecting the Relative Advancement and Turnover of Men and Women in Federal Careers.* American Psychological Association, Washington, D.C.: Civil Service Commission, September 1970.

Abstract: This report discusses the job factors, attitudes and preferences affecting the relative advancement and turnover of men and women in federal careers. The study of advancement utilized the responses of 11,000 men and 15,000 women. Findings included that women were more highly educated, participated as much or more, were older and had more service than men within the same grade. Women and men preferred men supervisors, women did not have as high aspirations as men. Close to 10,000 questionnaires were received for the turnover study. The overall turnover rate for women was consistently higher than for men. Occupation and age had a significant impact on turnover. However, sex differences are greatly reduced when turnover rates are studied within segments of the total group. Another phase of the study concerned work attitudes and expectations. Both men and women agreed on the ideal job aspects and on job satisfaction.

42. Matthews, H.A. Tomorrow is Now in Educating for 21st Century Manpower Needs. *American Education, 3,* June 1967: 21-22.

Abstract: A discussion of the purpose and aims of modern vocational education.

43. Mushkin, S.J., ed. *Recurrent Education.* National Institute of Education (DHEW), March 1973.

Abstract: The volume presents 24 papers deriving from the March 1973 Georgetown University Conference of Recurrent Education, the first major meeting on recurrent education to be held in the United States. The conference findings underscore the many problems and issues favoring greater flexibility in the timing of education and educational systems that give meaning to the broadening of these choices. The intent of the meeting was to provide American scholars a sense of European thinking about recurrent education to promote an interest at home. The papers are organized according to general topics: Policy Directors (three papers), supply and demand (four papers), target group focus (five papers), education and the world of work (six papers), and financing and politics of recurrent education (five papers). There is a summary analysis of an agenda for research concluding the papers. A 17 paper selected bibliography divided into subject categories is included, and an index to the papers provided.

44. Nassau County Vocational Center for Women. *Second Annual Report.* January 1969.

Abstract: The 1968 report of the Nassau County Vocational Center for Women presents the center's role in providing educational and vocational information and specific referrals to women returning to occupations outside their homes. An analysis is made of the women who enter the labor market and is related to the women now in Nassau County and to the jobs which will be available over the next six years. Further attention goes to descriptions of the: (1) women who visit the center; (2) library and its contents; (3) information and referral services with the latter including colleges, universities, vocational schools, public and private employment agencies, career workshops, testing programs, and placement in county government; (4) in-depth counseling and testing; (5) special programs, events, and speaking engagements; and (6) cooperation with other community agencies. An attempt is also made to assess the future role of the center. The appendixes supply the following: Female Labor Participation According to Age Groups (1966-68); The Annual Statistical Report (1968); and The Occupational Information Available at the Center.

45. Parrish, J.B. College Women and Jobs: Another Look at the 1970's. *Journal of College Placement, May 1971; 31; 4;* 34-40.

Abstract: Statistics show women made little professional progress either in work or training in the 1960's. The author sees ahead a strong possibility of non traditional careers.

46. Pietrofesa, J.J. and Schlossberg, N.K. *Counselor Bias and the Female Occupational Role.* Wayne State University, College of Education, 1970.

Abstract: The inferior position of women in the world of work is discussed as a backdrop for this study which sought to test the hypothesis that counselors are biased against women entering a "masculine" occupation. A coached female counselee, portraying a college junior who is having difficulty deciding between teaching and engineering, was privately interviewed by 16 male and 13 female counselor trainees at Wayne State University. All interviews were taped and then rated for their apparent bias by: (1) a male graduate student in counseling and guidance; (2) a male counselor educator; and (3) a female college professor. Results indicated that counselor bias exists against women entering a "masculine" occupation. Female counselors displayed as much bias as males. Implications are discussed.

47. Reno, P. *Vocational Education Needs and Opportunities for Indians; A Review. The Navajo Situation and a Summary of Its Implications for Four Corners Regional Planning.* September 1969.

Abstract: Concerned with vocational training as a means of aiding the solution to the Navajo Indian problem of lacking both saleable skills and the opportunity to acquire these skills, this report presents (1) the need for skill training and vocational education (Navajo Workers' Need for Training, Youth of the Navajo Labor Force, Navajo Lack of Schooling, Navajo lack of skilled work experience, Navajo lack of skill training, the economy's need for trained workers, job opportunities in the Navajo area, trained workers and economic development, and training in order to increase mobility; (2) vocational training and education in the Navajo area (Manpower Training Programs, Occupations for which training is conducted, training content and length of training, placement record, and institutional provision for vocational education); and (3) vocational education planning for Indians of the Four Corners region. Recommendations are that vocational education planning for Indians be given top priority in regional planning and that

vocational education be geared to local area and national job opportunities, adapted to Indian needs, and planned in coordination and cooperation with Indians in the area. SIC tables are provided.

48. Reuther, W.P. *Education and Poverty. In the Unfinished Journey; Issues in American Education.* 1968; p. 53-68.

Abstract: The late American labor leader states in this chapter that "no avenue should be left unexplored in seeking a more relevant education for poor children. One of the major implications of such a stand is a thorough-going overhaul of vocational education." Reasons for this opinion are given as practical suggestions.

49. Roderick, R.D. and Davis, J.M. *Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women. Volume Two,* March 1973. Ohio State University, Center for Human Resource Research.

Abstract: Conducted as part of a five-year longitudinal study of 5,159 young women in the National Civilian Noninstitutional population who were 14 to 24 years of age at the time of the initial (February, 1968) interview. Of those originally interviewed in 1968, 96 out of 100 were reinterviewed in 1969, and an analysis of this data revealed that: (1) black girls were more likely than white girls to drop out of school before completing the twelfth grade, (2) approximately three in ten young women had revised their educational goals with one in eight raising their goals and one in six lowering their goals, (3) approximately one-third of the young women employed at the time of both surveys made at least one interim move during the period, (4) job changes were associated with larger increases in hourly wages with increased job satisfaction, and (5) white young women have substantially more labor market knowledge than black young women. Results of the initial survey are reported in ED 049 376.

50. Roderick, R.D. and Kohen, A.I. *Years for Decision: A Longitudinal Study of the Educational and Labor Market Experience of Young Women, Volume Three.* Ohio State University, Center for Human Resource Research, December 1973.

Abstract: This volume is the third report in a series on a longitudinal study of the educational and labor market experience of young women. The study views the experience and behavior of individuals in the labor market as resulting from an interaction between the characteristics of the environment and a variety of characteristics that appear to be most important in explaining variations in several facets of labor market experience: participation, underemployment, and mobility. The focus is on the magnitude and patterns of change over the first three years of the study in the educational and occupational aspirations of the young women, in their labor and employment status, and in their affiliations with particular firms. The report is based entirely on tabular data and is intended primarily as a process report on the longitudinal study.

51. Saaverdra, L.E. *Vocational-Technical Education and the Mexican American,* 1970.

Abstract: The increased rise of technology is rapidly building the impact of vocational education as a legitimate endeavor of public education. The poor esteem in which vocational education has been held results from the combined attitudes of students, parents, and educators, and is especially evident among minority groups because of its second-class status. Data drawn from a vocational technical institution in New Mexico indicate that the number of high school youth choosing

vocational education does not differ significantly with regard to ethnic characteristics. However, more Spanish-surnames young adults are enrolled in post high school programs, such as the Albuquerque Technical Vocational Institute, then are students with other surnames. Additionally, once enrolled in vocational technical programs, Spanish-surnamed students tend to be more successful than students having other surnames.

52. Schafer, C.J. and Kaufman, J.J., eds. *Vocational-Technical Education: A Prospectus for Change.* Boston Advisory Council on Education, 1968.

Abstract: The major papers presented at a symposium, held in Boston, November 28-29, 1967. Partial topics discussed: manpower needs, curriculum development, administration of vocational education programs.

53. Siogren, D. and Gutcher, D. Current and Future Demands on Vocational Education. *High School Journal, 52,* February 1969: 219-228.

Abstract: A discussion of the American technological revolution and the resulting manpower problems that affect our vocational education system. Recommendations for future action are included.

54. Smoker, D.S. *Vocational Education: Innovations Revolutionize Career Training.* National School Public Relations Association, 1971. (At head of title: Education U.S.A. Special Report).

Abstract: Brief but concise assessment of vocational education in the U.S., the inadequacies of the system, what should be done for greater efficiency. Includes information on what particular states are doing to change the structure of their vocational training programs.

55. Somers, G.G. and Little, J.K., eds. *Vocational Education: Today and Tomorrow.* University of Wisconsin, Center for Studies in Vocational and Technical Education, 1971.

Abstract: A group of twelve papers by acknowledged authorities in the field of vocational education. They are primarily centered on "issues which have confronted vocational educators for many years and which remain essentially unresolved as we enter the decade of the 1970's.

56. Steele, M. *Women in Vocational Education – Project Baseline Supplemental Report.*

Abstract: Reviews the current status, women in vocational education. The study determines whether there is a cause effect relationship between school practices and limited job options for women in the world of work. According to a review and analysis of available data, schools at all levels are operating separate vocational educational programs for women. Although women comprise 55.5% of total vocational education enrollments and 2/3% of total vocational educational enrollments, they are concentrated in non-wage earning home economics and in health and office operations.

57. U.S. Bureau of Labor Statistics. *Occupational Manpower and Training Needs: Information for Planning Training Programs for the 1970's.* U.S. Government Printing Office (Bulletin 1701), 1971.

Abstract: This study contains information on how to use projections of occupational requirements and supply, and training in planning education and training programs. It includes data and statistics

on the types of vocational schools in existence and the federal manpower programs in this field. The last chapter "Relating Training to Occupational Needs" gives information on all professional and related occupations, and the training requirements of these positions.

58. U.S. National Advisory Council on Vocational Education. *Vocational Education: The Bridge Between Man and His Work*. General Report of the Advisory Council on Vocational Education. U.S. Government Printing Office, 1968.

Abstract: A thorough assessment of vocational education in the U.S. and the gains made through the implementation of the Vocational Education Act of 1963. Five recommendations are made to chart the course for future planning.

59. U.S. Task Force on Occupational Training in Industry. *A Government Commitment to Occupational Training in Industry Report*. U.S. Government Printing Office, 1968.

Abstract: A survey of training needs and programs operated by private industry. Recommendations are made as to how the federal government could assist in promoting such programs.

60. Venn, G. *Man, Education and Manpower*. American Association of School Administration, 1970.

Abstract: During the 1960's, the federal support given to develop educational manpower "tended to bypass the schools and postsecondary institutions, institutions best able to develop new skilled and technical manpower." According to the author this book is an attempt to define the action that should be taken to support education in its task of developing our human resources and preventing human failure where job training is concerned.

61. Vidal, D. Vocational Schools are Attracting Both More Students and More Unanswered Questions. *New York Times*, August 25, 1976.

62. Warmbrod, J.R. *Review and Synthesis of Research on the Economics of Vocational-Technical Education*. The Ohio State University, The Center for Vocational and Technical Education, 1968.

Abstract: Research reviewed is grouped under five headings: "Economics of Education"; "Benefits and Costs of Vocational Technical Education"; "Reports of Research: Public School Vocational Technical Education"; "Reports of Research: Costs and Benefits of Manpower Training Programs"; "Other Indices of Economic Benefits."

63. Washington, B.T. *Working With The Hands*. Published 1904. Publisher Unknown.

Abstract: Booker T. Washington's method of determining the curriculum at Tuskegee Institute. Need for intrinsic subject matter, need for desirable attitudes and ideals. Education as the reconstruction of experience.

64. Weldon, R.A. *Apprenticeship and Negro Youth*. J. Employment Counseling: 6; 3; September 1969: 117-120.

65. W.E. Upjohn Institute for Employment Research. *Minority Participation in Kalamazoo's Apprenticeship Training Programs: Assessments and Recommendations*. December 1970.

Abstract: Results of a study of apprenticeship programs, which provided related educational instruction, sponsored by the Kalamazoo Public Schools are presented. The study contains four sections. The first section includes a description of the nature of apprenticeship training, the role and status of apprenticeship training in Kalamazoo, and an analysis of current levels of minority participation. Information included in the second section pertains primarily to methods of recruiting apprentice candidates, entry requirements, and selection procedures for different trades in the Kalamazoo area. The barriers to increased minority participation are detailed in Section III. Assessments and recommendations are given in detail in Section IV. The central theme of the recommendations is the importance of security positive action by all groups associated in any manner with local apprenticeship training programs to increase minority participation in these programs. Recommendations that pertain to the school system's vocational education programs can lead to increased employment and training opportunities for minorities in the apprenticeship trades, as well as to a wider range of alternative career opportunities for all students.

66. Wolfe, H.B. *Women in the World of Work.* New York State Education Department, Albany, Division of Research, 1969.

Abstract: To provide research about women's work values and how these values may be related to specific demographic variables, questionnaires were mailed to 4,003 women in New York State. The six work values under investigation were identifiable psychological needs: (1) dominance-recognition, (2) mastery-achievement, (3) economic, (4) independence, (5) social, and (6) interesting activity. The demographic variables chosen to be linked with the work values were marital state, age, educational attainment, employment status, career pattern, socioeconomic class, and field of work. Analysis of 1,871 returns revealed that the values which women seek from work are linked to specific demographic variables. The only value which consistently crossed all demographic variables, and is, therefore considered the central work value for women was the mastery-achievement value. The two least important work values were dominance-recognition and economic. The results of this study have many implications for the guidance and counseling profession, such as (1) the work values of men and women differ, (2) women need to derive a sense of accomplishment and satisfaction from their work, and (3) women seek work to fulfill their social needs. A sample of the questionnaire is appended.

67. Worthington, R.M. *Transition from School to Work: The Role of Career Education.* November 15, 1972.

Abstract: Teenage unemployment is a critical manpower problem. Youth most severly affected are minority group members and those with limited education. Many barriers stand in the way of their obtaining steady jobs: wage standards, and competition for jobs from veterans and middle-aged women. Special measures are needed, such as a different minimum wage, manpower programs, and most importantly, career-oriented education so that those in the potential work force are trained to meet immediate needs for technological manpower. With the growth of blue collar, white collar, service and goods, producing jobs, career education needs to prepare all students either to take a job or to enter their next step of educational preparation when they leave high school. The development of a career education system requires the accomplishment of differing objectives at each level of the existing school system. Although vocational education has been the largest source of formal training for occupations not requiring a college education, implementation of vocational education legislation has met with some problems. Career education is more than specific job training and results in improving the transition from school to work, consequently greatly influencing the future employment picture of the country.

68. Yoesting, D.R. and others. *Career Decision-Making Processes of Iowa Young Adults. Final Report. Sociological Studies in Education. Sociology Report 77.* Iowa State University of Science and Technology, May 1968.

Abstract: This study had four objectives: (1) to determine the relationship between migration, occupational and educational aspirations; (2) to determine differences in career patterns between males and females, farm and personal characteristics and occupational and educational attainments; and (3) to determine the relationships between migration and social and personal characteristics. Data was obtained in 1948, for 157 graduating seniors from nine rural high schools; from a follow-up study of 152 of the same respondents in 1956, and a second follow-up done of 143 of the same population in 1967. Data was gathered by personal interview and questionnaire. Results indicated the following: (1) more females than males migrated from home communities, (2) males had a higher degree of congruency between occupational aspirations and attainments than females, and (3) occupational attainments were related to socio-economic background, parents' education, migration, and educational aspirations and attainments.

69. Young, R.C., ed. *Manpower Information for Vocational Education Planning.* Report of a Conference Held at The Ohio State University's Center for Vocational and Technical Education, June 12 and 13, 1969.

Abstract: Papers presented for the conference, followed by comments from those in attendance. Sessions were held on such topics as forecasting occupational employment for state vocational education planning and occupational education and training requirements.

Additional References

70. Davenport, Lawrence and Petty, Reginald. *Minorities and Career Education.* Educational and Community Counsellors Associates, Inc., Washington, D.C. 1974.

71. Hall, Clyde W. *Black Vocational Technical and Industrial Arts Education Development and History.* American Technical Society, Chicago, Illinois, 1973.

72. Kaufman, Jacob J. *Sex Discrimination in Vocational Education.* A paper presented at the annual meeting of the American Vocational Association, Anaheim, California, 1975.

73. McClure, Phyllis. *Title VI and Title IX Compliance by the Office for Civil Rights in State-Operated Special Purpose and Vocational Schools Pursuant to Adams v. Matthews.* NAACP Legal Defense and Educational Fund, Inc., New York, New York, July 1976.

74. Wallace, Phyllis A. *Pathways to Work.* Lexington Books, D.C. Heath and Company, Toronto, 1974.

MEETING THE NEEDS OF THE HANDICAPPED

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Introduction

When the National Advisory Council provided the title for this presentation, they left an almost limitless range of possible topics. What is handicapped? Does that include individuals who are blind and deaf or who have behaviors that give them labels such as profoundly retarded, autistic, custodial and chronically mentally ill? What are needs? Does this include full acceptance by society? By some small segment of the society? Economic viability? If, indeed, there must always be a surplus population in a capitalistic society, are the handicapped prime candidates for permanent inclusion in this pool? And if so, then what are their needs? Since vocational education and education in general have only recently begun to consider their responsibility as including those individuals who find it most difficult to learn, perhaps we had better begin by examining the concept of handicapped by distinguishing it from not handicapped or normal.

How does one get to be normal? It is not by adding a collection of things together so that one "fills up enough of his cup" to make it into normalcy. It is, instead, a complex interaction between a person's competence and his deviance, that is perceived by those around him as resulting in a net positive balance. Each of us remains in his various roles as members of communities, spouses, employees, friends, etc., only so long as the significant parties to those various roles continue to perceive us as having more things about us that are wanted, needed and not readily available (competence) than those things about us that bring negative attention and must be tolerated (deviance). According to the Competence/Deviance Hypothesis: The more competence an individual has, the more deviance will be tolerated in him by others (Gold, 1975). Using job performance as an example, if one performs successfully at a task which is essential to the business, and which no one else can perform without considerable training, that individuals would have to display considerable deviance for dismissal to be considered. From this perspective, a meaningful definition of "normal" or "handicapped" requires recognition of this complex interaction between competence and deviance.

The phrase. "Hire the handicapped," for example, is a self-defeating marketing strategy. No one in business or industry wishes to expend resources to carry someone on their payroll. And no one wants to be hired because of his deviance. A more facilitative slogan would be, "Hire the competent . . . and know what competence means." Meeting the needs of people who have been labeled handicapped really means to fulfill the needs of society, the needs of business and industry and everyone else, except those whose need is to always have someone who needs them. To begin to meet these needs, we need only revise two of the basic assumptions which obviously underly current efforts. First, we must move away from a strategy that focuses almost exclusively on the elimination of deviance and towards a strategy that focuses almost exclusively on the development of competence. Second, we must recognize the inherent futility of benevolence as the energy source for meeting the needs of individuals who have been labeled handicapped. Give me dignity, give me respect, but give your benefolence to someone else.

The position taken here is that virtually all of the current attitudes, assumptions, and practices in the fields of education and rehabilitation preclude genuine and full participation of severely handicapped individuals in society (Gold, 1973). Those individuals with sensory handicaps, speech defects,

minor emotional difficulties and mild physical disabilities are seen as basically intact systems with malfunctioning subsystems, that is, "They're just like us but their eyes don't work, or their legs don't work." Our responsibility to these people is one which we have recently come to accept as providing the resources to give them sufficient competence to maintain a positive balance and therefore to be accepted as equally participating members of society. Since we see them as intact systems, we have no trouble justifying the expenditure of resources because of the predicted favorable cost/benefit ratio.

For those individuals with developmental disabilities, as they are currently described, individuals with moderate, severe and profound mental retardation, autism, severe physical and multiple disability, and the severely disturbed, we have a much different problem. We, as a society and profession, view these individuals as malfunctioning systems and, as such, incapable of achieving full participation in society. We have a long standing tradition dictating how we deal with intact systems which contain malfunctioning subsystems. Take the automobile as an example. You step out of your home one morning, get into the car, attempt to start it and find that nothing happens. The local garage sends out a man who says the battery is dead and needs replacing, the alternator is broken and some of the wiring needs to be replaced. The car will not move but it is clear that it is an intact system and that the repair of the three malfunctioning subsystems will result in successful operation of the system. The decision is simple, fix it. Some of you may have had a different car, one that sat in the backyard, was without wheels, without a windhshield or upholstery, and missing the carburetor, the radiator and the hood. Do you remember telling friends that the transmission was perfect? That the car had a new set of brake shoes? That the car had had a tuneup just 1500 miles ago? Of course not! This car is obviously a malfunctioning system and as such, intact subsystems, except to the junkman, are of no interest. Like the first car, the decision is simple. But, in this case, forget it, it is junk. One does not put resources into a malfunctioning system, one replaces it. There is one other car to discuss, the borderline car. It needs tires, a battery, a valve job, a new radiator and a paint job. What should you do? The only really difficult decision is deciding if it is a malfunctioning system or an intact system with a number of malfunctioning subsystems. Once this decision has been made nothing else is difficult. Once we have decided whether or not something is an intact system or a malfunctioning system that decision provides the basis for justifying either the use of resources to repair subsystems or the replacement of the system. This society has implicitly conceptualized some of its citizens as malfunctioning systems. Having done so the best it hopes to do for those citizens is to take them out of the big old wrecking yards and put them into little pretty ones. The current movement to deinstitutionalize many of these persons has, in most cases, done only this. Some of our citizens with severe retardation are now watching colored television with two other people instead of black and white television with a hundred others. They are being taken care of better, living in nicer places, but they are still in the wrecking yard. Very few of them are "on the highway." For this to happen each of them must be re-perceived as an intact system with, in many cases, severly malfunctioning subsystems. To do this, we must take one subsystem, and show it to be thoroughly functioning and competent. When this happens we will then have to acknowledge that an intact subsystem cannot be observed functioning unless it is existing within a basically functioning system. Vocational skill performance is just such a subsystem. When we did an experiment to train individuals with severe and profound retardation, who are also blind, to assemble a complex industrial task (Gold, 1976), the ward staff who brought them to the research room, upon seeing them successfully assembling the task, asked why, if these individuals could do this, did they have to be dressed, fed and transported all of the time? Since then, all of these skills have been taught to these individuals. Once competence is demonstrated one cannot help but look for more competence.

Meeting the needs of the handicapped requires, then, identifying relevant societal values, priorities and resources. Strategies must be developed with a strong awareness of the context in which

individuals with handicapping conditions will exist. The following section attempts to provide some description of the current context.

Current Trends and Their Implications

The field of education has long suffered the bruises of jumping on and falling off of bandwagons. Many of these bandwagons have a reasonable, conceptual and empirical foundation. The unit approach to teaching social studies (e.g., Ingram, 1953), the phonics method of teaching reading (e.g., Chall, 1967), and open classrooms (e.g., Featherstone, 1971) all might be so described. The problem with these becoming bandwagons has been that school systems have jumped on without learning how the wagon was constructed or where it was going. The results have been unfortunate.

The current movement to "mainstream" individuals who have been labeled handicapped is an interesting example (e.g., Birch, 1974). The basic notion is that pupils who have been served in special classes should be served in regular classes along with pupils who have not been so labeled. Support for this movement has included more than a dozen efficacy studies which failed to show significant advantages of special class placement for children labeled educable mentally retarded (See Kirk, 1964), litigation questioning the constitutionality of selected procedures for special classes (e.g., Bailey, 1972; Rosen & Solozanis, 1974) and budgetary considerations. Observations of most attempts to provide vocational education for handicapped individuals shows a lack of awareness of this literature. Most of these attempts still segregate individuals with special needs into classes that are just for them and, in some cases, schools that are just for them. Attempts to meet the requirements of legislation calling for the expenditure of ten percent of federal funds to meeting the needs of individuals with handicapping conditions have also tended to be either segregated programs or outright misuse the funds. The position taken here is that programs for normal individuals show a lack of systematic training strategy. Pupils are exposed to machinery, procedures and techniques and, with little assistance and carefully planned instructional technology, acquire enough information to satisfy those evaluating such programs. This may be fine for normal students, but under these circumstances, it is no wonder that individuals with special needs have been viewed as unsuccessful when integrated into these programs. For individuals with mild handicapping conditions, a shift by vocational educators to a more structured and carefully designed instructional environment for all students would allow individuals with special needs to enjoy success in an integrated circumstance and would probably yield significant increases in the skill capabilities of normal students in such classes.

For students with more severe handcapping conditions, the issue is more complicated. Under what organizationl structure should these students be taught? The tendency, as with so many of the other movements, is to oversimplify, in this case, the distinction between mainstreaming and special class placement, as a simple dichotomy. Also, as with many of the other movements, the basic issue of what is best for the student has obviously been a low priority consideration. Decisions on where to teach should be based on the specific pieces of learning, information or skills with which a community wishes the students to leave school. Then, for each of those, decide where and how they are best taught. This will result in an organizational structure where the individual who has difficulty learning will acquire some skills along with individuals who do not have such difficulties; will acquire other skills with individuals who have problems similar to his; and will acquire yet other skills through individualized instruction. One need only listen to the compelling arguments on both sides of this issue to realize the need for a continuum of options. The development of these options by vocational educators might be one step in their pursuit of a leadership role in education.

Right to education is another current bandwagon in education. This movement got its start in Pennsylvania where the courts mandated that the educational system of the state serve all school age pupils (PARC, 1971). One by one, most states are now legislating such action so that, on an increasing basis, schools will be required to provide services and programs for all school aged individuals including those who are most difficult to train. While there seems to be a general consensus that such individuals have a right to education, there is considerably less of a consensus as to whether or not the public school should be the service entity providing this education. In any case, children categorized using the educational jargon "trainable" and subtrainable" will eventually be an integral part of our public school systems. Will we meet the letter of the law by simply having them there or will we develop viable programs for doing something with them? Vocational education, again, has the opportunity to provide important leadership in the development of programs which can have more of an impact on the lives of the individuals to be served than any program has ever had, the difference between societal existence or custodial care.

Another current trend which can contribute to both mainstreaming and Right to Education activities is the developing cooperative relationship between vocational education and special education. This trend, which began originally between vocational rehabilitation and special education, through the efforts of Charles Eskridge in Texas more than a decade ago (Eskridge & Partridge, 1963) seems to finally be a part of many public school and university efforts involving vocational programs for individuals with mild and moderate developmental disabilities. A current example is the series of National Workshops on Special Needs Vocational Teacher Education developed by Rupert Evans at the University of Illinois. The first workshop, held in 1975, received applications from over 70 institutions throughout the country, a strong indication of interest in this area. Another aspect of these conferences, of particular interest here, is that the impetus for this activity came from the vocational education sector rather than from special education, as has tended to be the case. The tendency, in fact, throughout this movement has been to pawn off the responsibility to special educators. To successfully address this problem, it is going to require full utilization of all of the resources and knowledge of both of these disciplines and probably some others, also.

From the special education side of this coalition individuals such as Gary Clark (e.g., Clark, 1974), Donn Brolin (Brolin, 1976), William Younie (e.g., Younie & Clark, 1969), Charles Kokaska (Kokaska, 1974), and others have begun to increase the communication between these two disciplines and establish priorities and goals out of which some programs have begun to emerge. With the exception of programs for the deaf, the overwhelming majority of the work that has been done as a cooperative effort has been limited to service to individuals with mild handicapping conditions. Although there are now more students receiving better service, expectancies for the vocational capabilities of individuals emerging from such programs have remained not much different than they were prior to cooperative programs being established. At present, then, there is a good base from which to build programs giving individuals with mild, moderate and severe handicapping conditions a better crack at the world of work than they have ever had before.

Another trend in the delivery of services to persons with handicapping condidtions is the overwhelming emphasis on quantity at the expense of quality. Limited resources, a legitimate interest in serving all of those individuals who need service, the need to focus initially on the acquisition of basic resources such as space, staff, equipment and funds, have all mitigated against the development of quality services. It seems that each time a program finally has the resources to move into quality programming, a decision is made to drain resources away to expand the program quantitatively. The result has been, for the most part, that many more individuals in many more places are receiving services but the services they are receiving are usually no better than what a fewer number of people

received in the past. This strategy should be changed. We should be improving services not just giving them to more people. The demonstration of major significant performance by individuals who have been labeled handicapped, especially severely handicapped, is a more viable strategy to increasing available resources than showing little or no growth in many individuals (Gold, 1973). This strategy is not made easier by the other trends mentioned which have called for access to available resources by all individuals concerned. The long range goal of high quality service to all individuals in need of such service, however, is more attainable if we focus on quality first and quantity second.

The last trend discussed here relates to vocational training strategies. Almost all of the "strategies" found in programs are actually organizational structures rather than strategies, for example, on-campus work experience programs, on-the-job training, classroom instruction and real or simulated workshop experience. The focus of attention has been on these organizational structures rather than on the actual instructional technology to be used in those settings. The result has been that most learning which has occurred resulted from exposure in these settings rather than from systematic and carefully designed manipulations of these various environments. It is to our advantage to have a wide range of organizational structures available within which to provide training, however, none of these structures will carry us very far in the absence of well developed instructional technologies.

These trends simultaneously point up the tremendous growth we have undergone in the last twenty years and the urgent need for significant and major changes in what we are doing: We've come a long way, baby, but we've got a long way to go!

The Future: What Might It Be Like?

The list below reflects a firmly entrenched optimism. For those who do not share this optimism a different list would have to be developed.

1. The proportions of unskilled, semi-skilled, skilled and professional jobs in this country will remain basically unchanged, however, specific jobs within each of these categories will come and go (Nixon, 1970). Decisions regarding the training of any individual, no matter how handicapped he is perceived to be, will rest on a carefully arrived at decision as to whether or not a job can be subdivided into teachable components rather than on some general feeling about the complexity of the particular job, as is now the case (Gold, 1976). The result of this will be that individuals with all kinds and severities of disabilities will be found in a tremendously wider variety of positions than is now the case.

2. Vocational training programs for persons who have been labeled handicapped will contribute individuals to the labor pool who are so clearly competent at a wide range of specific functions that those things which would previously have kept them from opportunities in the world of work will do so no longer. Business and industry will come to recognize the advantages of revising their recruitment, hiring, training and supervisory practices so as to gain access to this valuable new labor source.

3. The Protestent Ethic will continue to lose ground but a person will continue to be known by what that person does for a living (Parker, 1971). For those individuals whose observable deviance is minimal or nonexistent, acceptance by members of society and community will continue to be enhanced but not determined by their vocational contributions. Individuals with observable deviance, especially those with severe disabilities, will come to be

seen as thoroughly participating members of society and of communities, peers in virtually every respect, first through their contributions to the economy, and second, through the same mechanisms as the rest of us, once society has reason to look beyond those things that have distracted us.

4. The proportion of life skills that individuals acquire outside the school will increase. For some kinds of learning this means that schools will continue to develop activities outside of the school building and be involved in the use of those activities. It will also mean that schools, as entities, will contribute less and less to the educational process. Other viable teaching entities will include community groups, private enterprise, television, private individuals and a wide range of individual and group auto-instructional activities. Following some adjustment problems, schools will take the opportunity to significantly increase the quality of instruction in those areas that continue to remain responsibilities of the schools to teach.

5. Sheltered workshops will continue to be a significant part of the vocational lives of individuals with severe handicapping conditions. They will undergo major changes in their operational philosophies and practices or go out of existence because of poor business practices and a lack of public support. As sheltered workshops begin to show their capabilities to provide genuinely meaningful training and work to individuals with severe handicapping conditions they will become defined as special places where normal work is done instead of places where substandard work is done. Vocational education and special education will utilize sheltered workshops, however, the use of sheltered workshops as a convenient dumping ground for individuals with mild handicaps will cease.

6. Post-high school education will be utilized more and more to obtain information not specifically related to vocational goals. Self-help skills, crafts, recreation and other aspects of adult life will be pursued in adult education programs, colleges and universities. Public schools will begin to focus more on providing the groundwork for this kind of adult and continuing education. Vocational educators might expect to be held increasingly accountable for providing all individuals with a broader set of basic skills such as tool usage, home and auto repair, practical measurement skills and, perhaps, an even wider range of specific practical skills. The development of effective, efficient programs to meet these needs should include the teaching of these skills to all individuals with special needs served by public schools.

7. The whole issue of accountability is one that will have to be increasingly addressed by vocational educators. As advocacy continues to increase in popularity in this country, we can expect communities to become more and more demanding of benefits resulting from vocational education programs. If vocational educators maintain a leadership role in recognizing changing societal value structures and in addressing them, then they can maintain control over their own destiny. If societal needs are not addressed, however, vocational educators will find their options constrained by mandates. The mandates to spend ten percent of all federal vocational education funds on the handicapped and another fifteen percent on the disadvantaged are clear examples. If vocational educators had initiated strong, visible programs for such individuals, these mandates would have never come about. Passive leadership at this time in our development will probably result in more and more constraint on the options open to vocational education programs.

8. Pluralism will continue but the rules of the game will improve. Most of us in vocational education, special education and other disciplines and professions have spent all or most of our careers existing in a booming economy. Rapid program development has been the rule rather than the exception and, only recently, has there been strong demand for cost-benefit justification. It seems reasonable to assume a stable but not rapidly growing economy, and that this set of circumstances will remain for a long period of time. If this happens, all of us special interest groups will be competing more than ever for available resources. The combination of the advocacy movement, limited resources, increased political accountability and public awareness in general should result in funds being distributed on the basis of demonstrated effectiveness in meeting current societal needs. If vocational educators are able to demonstrate major gains in the quality and quantity of skills in the people they serve, utilizing the resources they already have, they should expect a front row seat at the trough. Those disciplines that continue to demand more and more support in the absence of clear cut effective utilization of existing resources will probably die.

Conclusion

We are an enlightened, capitalistic society. We believe in the profit motive and in private enterprise to a point beyond which we become offended. We continue to have faith in the democratic process, but our minorities are becoming increasingly important to us. Each of us has special interests, as has always been the case, but we each probably have more special interests than people have ever had before, allowing us, as a society, to broaden our acceptance of divergent points of view.

The boundary conditions of normalcy continue to undergo major expansion. In almost every aspect of our existence we have modified what we believe normal to be. For each of these, what is normal now? marital status? sexual preferences? hours worked per week? years of schooling? longevity at your present job? How many friends does the average person have that have things about them that might cause them to be labeled handicapped? What is normally thought when someone gives birth to a child with a major problem? Which political party is right.

In our lifetime people who are very different than people most of us have ever really known, lovely people, will be moving into our communities, living next door to us, growing up in our families, marrying our children and interacting with us in every conceivable way. Doesn't it make sense that they should have everything we have in the way of the opportunity to make it? Vocational educators could provide these citizens with many of the critical skills needed for full successful participation in society. For many of these skills vocational educators are the only logical and competent source.

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SECTION V: THE YOUTH PERSPECTIVE

THE FUTURE OF VOCATIONAL EDUCATION: A YOUTH PERSPECTIVE

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No matter what we say, what we do, or what we plan to do during this Bicentennial Conference on Vocational Education, none of it will do us any good whatsoever unless we benefit by putting these plans, these ideas, and these thoughts into use which will help to increase the effectiveness of our educational programs within our nation, our states, and more importantly, within our grassroots programs in local communities.

The great problem in all educational systems is how to attempt to educate everybody. The world has never had to face this issue directly; however, it will also no longer be possible to evade it.

I would like to speak to you from an individual standpoint, from a student standpoint, from an almost completed product you might say, of our educational system. This viewpoint is not only from our elementary and secondary schools, but also from our institutions of higher education. Likewise, my remarks have been tempered by my youth, as well as by a more recent contact than any of you in a vocational program in a high school in my home state of Texas, excepting those current students present.

Vocational education has for many years attempted and more importantly, succeeded in giving products of its program a saleable skill. This skill is one that enables the individual to get a good job, thereby becoming a useful, productive, contributing citizen to our society. In more common terms, vocational education has to prepare young people to face the ultimate and inevitable world of work.

As the aforementioned has been a goal of vocational education, it must also be prevalent in the years ahead. In our attempt to educate everybody, we must not lose our grasp of the need for every individual to find he or she can do. A theologian and educator, Comenius, described some of the possibilities and options available to us. He once said, "Do not imagine that we demand from all men an exact or deep knowledge of all the arts and sciences. This would neither be useful of itself, nor, on the account of the shortness of life, can it be attained by any man. For we see that each science is so vast and so complicated that it would occupy the lifetime of even the strongest intellects if they wished to master it thoroughly. It is the principles, the causes, and the uses of all the most important things in existence that we wish all men to learn. For we must take strong and vigorous measures that no man, in his journey through life, may encounter anything so unknown to him that he cannot pass sound judgment upon it and turn it to its proper use without serious error. Some men have such weak intellects that it is not possible for them to acquire knowledge, and I answer, it is scarcely possible to find a mirror so dulled that it will not reflect images of some kind, or for a table to have such a rough surface that nothing can be inscribed on it."

Our goal as participants either directly or indirectly involved with vocational education should be to help these individuals find what they can do, then show them how to take advantage of these opportunities effectively.

In my opinion, one of the biggest obstacles that American education has to overcome is to show the individuals involved in the educational system, the students, that their education should be and can be relevant to them as individual citizens. I have heard many young people comment that they

find no reason for studying some curricula because they cannot see where it can apply to them in their various endeavors at work in later life. When the relevance is not shown to some weaker individuals who have not searched for an insight into their futures, it sometimes helps result in our high dropout rates.

Two years ago when I travelled throughout the United States as National Secretary of the Future Farmers of America, I had the opportunity to visit with businessmen from all facets of industry. Invariably I always found these individuals expressing their faith in our young people. In our conversations, we always turned to the question of what types of qualities they looked for in young people before employing them.

First of all, they usually mentioned salable skills in order that the employees could perform job functions necessary to meet the needs of their company. They desired young people who had some type of training in the area of assuming leadership roles. There was also a need for young people who had social competence, that is, they could get along with the people that they were not only living among, but individuals that they were working with. Civic awareness was also frequently mentioned. So in essence, what society needs, what business needs, what industry needs, what America needs, are educational institutions and systems that will provide people that have these qualities of civic awareness, leadership ability, salable skills, and social competence.

Joint efforts should be pursued in developing a partnership between the business community and the education community in order to insure that we are training young people for the needs of tomorrow. This is in direct opposition to preparing young people for jobs today that will not exist by the time that the college diploma or certificate is received. Therefore, we must make sure that the people who develop the policy, who make the decisions concerning curricula, are not unfamiliar with the language of the students. We must insure that these policy makers are aware of the individuals that will be affected by the decisions--the student!

There are some people in education who insist that secondary education should not be concerned with vocational education but rather with the traditional and basic academic preparation. However, I contend that when one examines the needs of our complex society, we must insure that the products of our educational institutions are not undereducated. In other words, an inclusion of some vocational education in every student's educational experiences is not beyond my assessment of individual and societal needs. For this to exist, education on all levels must be flexible and responsive to individual needs.

To oppose this idea, one would contend that the limited educational resources provided by federal and state governments would tend to limit this theory as both plausible and possible. One of two approaches could be taken. First of all, a careful examination of where taxpayers' monies are being utilized might aid in redirecting funds to educational, particularly vocational, budgets. When I see my fellow college students utilizing food stamps or other forms of welfare which they should not be eligible for, I see other areas of our economy needing the support suffering. This is why I see a need for study and evaluation then action in an attempt to alleviate this inequity and misuse.

Secondly, it is my belief that maybe we should reorder our priorities in educational funding. We realize that sowing more and more funds into a program does not necessarily increase its effectiveness. Yet, if we can successfully reorder our priorities, making better use of our resources, we can make the most of those funds which we do possess. This is why I am opposed to lump sum educational funding from the federal government to our states. If the needs of vocational education are adequately specified and supported within our state plans, then budgets in vocational education can offer the thing

most difficult for traditional academic curricula to provide—accountability. Sure, we can graduate students from high schools with impressive aptitude test scores, but how many of these have skills commensurate with jobs available and necessary for our nation's continued prosperity?

This is the basic reason I support the idea of career education and exploration. It is indeed encouraging that our policy-makers in education have finally realized that this work-concept has always been prevalent in vocational education. The development of an individual's total self is affected by a variety of experiences in the home, school and community. Some students may use their job preparation either immediately in the area for which they are trained; in a related area; or pursue further training, using their early preparation as a segment of their total objectives. We must not fool ourselves either into believing that vocational education is not successful if a student, after completion of a curriculum, decides to pursue a totally unrelated field. If this occurs, the individual has utilized his training as both an exploration tool and a supplementary skill is developed.

Because of the latter reasoning, I cannot agree that funds should be affected by or the vocational education programs should be heavily evaluated by the number of students completing them and placed in gainful employment in those very same areas. I took vocational agriculture in high school. Using current standards and evaluation methods, I was one of vocational education's failures! Simply because I did not obtain employment immediately after high school graduation, I fell into this category. Yet, vocational education did offer for me an exploration of career options in agriculture that I would not have been aware of had I not been a student of vocational education. When I receive my Bachelor of Science degree in December, I plan to either pursue graduate work or a law degree, hopefully to involve myself in the industry of agricultre in some related manner. Again, however, statistically, I am one of many failures in vocational education.

I consider the individual who gains both a skill and leadership ability through vocational education and vocational student organizations entering related fields just as much of a significant product as the student obtaining gainful employment immediately. This problem of evaluation is definitely a factor affecting the future of vocational education in the United States.

It is at this point we can begin to put our fingers on the roles that each of us must play. As educators, you must continue to offer as many opportunities as there are available in the fields you work in by sharing your knowledge. By joining with business and industry, we must define and determine what changes occur in those fields so students will not be undereducated when they enter the job market. We must insure our society and economy that skills are offered to young people that match the industries' changing needs. As government officials, you must not allow political affiliation or more directly, partisan politics, overshadow the basic needs of total career-oriented vocational education. As state advisory council members, we should dedicate ourselves to making vocational education responsive to student needs by keeping government, educational agencies, and local communities aware of not only vocational education but its products—American students! Most important in our assessment is that all of these elements affecting vocational education must work together or we will lose sight of the role that individuals play in making the educational experience for today's youth the most meaningful and productive.

The governor of our state, Dolph Briscoe of Texas, once mentioned what he told one of his attorney friends. He said that many Texans will go through life without the need for a lawyer, but they will all, at some time or another, need a plumber. He continued by saying that these honorable trades suffer from the false pride of parents to whom it seems that a college degree, with a little income, is more supportive of the ego than a skill which produces plenty. But, he also thought that this attitude is disappearing and will continue to disappear more and more—because the truth is that

our modern, highly mechanized economy would grind to a screeching halt unless there are those who have the skills to create and maintain it.

Vocational student organizations all stress and show how their unique vocational trainings can and will be used in our society if they are applied. Instruction must be useful in later life. Please allow me to borrow the Future Farmers of America motto: Learning to do, doing to learn, earning to live, living to serve. In other words, learning by actually doing and reaching toward a final goal of earning to live in order that we might serve ourselves and our society.

A tremendous challenge confronts the educational systems in providing something for everyone. When our individuals are properly trained for the future, then the whole world will benefit. However, every individual should have the opportunity to have some purpose in life based on his or her choice, or his or her ability, regardless of the financial status.

Many things face our educational programs and it can be changed to fit the needs of our society. Not everything that is faced can be changed. But, nothing can be changed until it is faced. The only thing constant in America today is change. Let's make that change viable to each and every citizen!

THE FUTURE OF VOCATIONAL EDUCATION: A STUDENT PERSPECTIVE

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THE FUTURE . . . yesterday, today, tomorrow . . . I was, I am, I will be . . . what can you say about the future? The one unchanging characteristic of the world in which live is that it is always changing. So what can be a perspective on the future?

When I was asked to prepare a paper on the future of vocational education from a student perspective, I was really perplexed. I had thought about the future . . . *my* future . . . but never the future of vocational education. And my point of view had not been "The" student perspective, but my perspective, one student out of millions of students. So again, what can you say about the future?

I started to answer this question by going to other students in vocational education across the nation. I believe that the strongest participation of youths in the vocational student organizations associated with the six areas of vocational education. These organizations are: Future Homemakers of America, Future Farmers of America, Distributive Education Clubs of America, Future Business Leaders of America, Vocational Industrial Clubs of America and Office Education Association. So naturally, it was with students in these organizations that I worked and corresponded to investigate the future . . . from a student perspective.

But first, what makes the student perspective special? What makes the student perspective different from say my point of view or your point of view of your nieghbor's? To answer this question we first have to identify our own perspective. You should find in front of you a piece of plain white notebook paper. Will you take this paper now and fold it into three equal parts. Lets do some creative thinking from our perspectives about the future. On the front side of this piece of paper take a look at your own personal past, present and future. In the first division, write at least one characteristic of yourself in the past. What made you unique and yourself? In the second division, write at least one characteristic of yourself in the in the present. In the last division write a characteristic of yourself in the future. This is the hard part . . . thinking about the future takes creativity, imagination, and if you are to be realistic, a good knowledge of where you've been and where you are, to know where you are going. Your perspective is uniquely you because of your experiences and your own special personality, so there shouldn't be any need to discuss this project with other people. Lets take a quiet few minutes and analyze the characteristics that make up our past, present and future . . .

Now that you have looked at your own past, present and future, what is your perspective on vocational education? Turn your sheet of paper over, and in the first division write a characteristic of vocational education in the present that is important to you, in the second division, write a characteristic of vocational education in the future, in the last division, briefly relate the part of vocational education might play in your own future, perhaps as a student. I have found that when dealing with students particularly, it is difficult for them and probably for all of us to articulate our ideas about the future of such a vague subject as vocational education. This exercise proved helpful for them as I hope it will for you. Take a few minutes now and put down your ideas about vocational education in the present, the future and in your own personal future . . .

At this time I would like to issue an invitation to you to dialogue. For now, your thoughts as you have written them in front of you are your part of the dialogue and my speaking to you on

behalf of the students of vocational education is my part of the dialogue. But do not let the barriers of this room and this time space prevent you from carrying on this dialogue with me during the rest of this conference and with other students throughout your involvement with vocational education. Take a last minute to look over your perspective on vocational education. Now let me share with you my findings on the student perspective.

What is vocational education from a student perspective? It is a classroom, with four walls and a desk and a teacher. But what makes this classroom unique is that there is also a lab area where the book learning is applied in practical skill areas. It is also the job situation where teacher and employer are one and the walls of the classroom have expanded to become the horizons of the world. Vocational Education is a local FHA, VICA or DECA meeting where students become the leaders of themselves. And Vocational Education if found in the excitement of a state or national meeting where students eagerly participate in workshops, competition in some organizations, and anxiously await the election of new officers. What characterizes this point of view is that it is action oriented and highly personal. And the definition that evolves is this: in the words of Anne Willette, an FHA National Officer, "Vocational education prepares one for life . . . by preparing one for a job but perhaps more important by preparing one for the job of living. As the task of living becomes harder, people are going to need to have their heads screwed on straight." Therefore vocational education programs must provide the "marketable skills" needed to be "a vital part of the free enterprise system" as Nicholas Clementi and Tommy Cole, two FBLA-PBI officers put it but also to give students those skills necessary to enjoy a full life.

Vocational education is a worthwhile part of every student's studies. Does this seem to obvious a point? Possibly not. I can remember back to my recent past as as student in vocational education at Cheney High School, Cheney, Washington. I was bright and made good grades in school and the attitude of most of the counselors, teachers and administrators was, "Don't waste your time in vocational education. That's for students who don't have the potential for college." Why does this attitude prevail? Part of the reason must lie with our own attitudes towards vocational education. Do the teachers who teach it and the students who learn it and the legislatures who legislate it and the administrators who administrate it really believe it is worthwhile? Ask Felicia White. Felicia is a young black woman from Florida. She will tell you, "If I hadn't been involved in vocational education I would be out roaming the streets causing trouble. I was bored at school and the people I hung around with did not have good attitudes about themselves or anything else. But then I got involved in the Future Homemakers of America and it changed my life. I could be getting high on drugs . . . I'm not . . . I'm getting high on life." Would you give vocational education so much credit for the good things in your life? When Felicia spoke these words she was a graduating senior about to go to college on a four year scholarship. She was also the National Vice President in the Future Homemakers of America. Anne Willette from Blue Earth, Minnesota said it in a different way, "For the betterment of society, as far as I can see, vocational education is a must. It gives people direction and purpose in life and this is vital." Is this your attitude? If it is, why isn't it coming across?

It was three years ago that I attended my first conference as a guest of the National Advisory Council to Vocational Education. Held in Washington, D.C., it was a joint meeting of the National Advisory Council with all of the state councils. As one of the eighteen students in a gathering of over two hundred I felt extremely pressured to again articulate the "Student Viewpoint." At one point in the conference, we were broken down into twenty tables and assigned a topic to discuss. I sat down at the "legislative action" table, the only student and the only female. I was greeted with the comment, "Well, little lady, why don't you be our secretary"? . . . Needless to say, my first impression of the leaders of vocational education was that they needed to wake up . . . first to talk to a real live vocational education student and second to re-evaluate some of their stone age attitudes

towards male and female roles in society. But there are more comments on that later. The point of this story is what came out of that round table discussion on legislative action. Another table assigned that same topic reported back to the conference saying, "That we are the makers of the bullets." Seeming to imply that it is someone else's job to sell vocational education to our legislatures and to the public in general. As the reporter from my group, my comment then and for the future is this, "If we make the bullets we are also the only ones interested and qualified to fire them." Deb Huebner, a student from Oakes, North Dakota and the North Dakota State President in FHA, echos this statement with one of her own, "It is important for the future of vocational education to encourage a better public awareness of vocational education and its benefits to individuals and their communities."

An integral part of vocational education for many students is involvement in a vocational student organization. I asked a DECA chapter at Cheney High School, why join? A rather candid response was that it allowed them to get out of school early each day to go to work. Yet this was more than just a sophisticated game of hooky. The classroom represents a place of failure and low self esteem for too many students. For Ann Gill, DECA taught her that failing is part of being successful, "I'll keep trying to succeed even though I'll fail along the way. I'll learn a lot more doing this. You learn in this class to always succeed even though you fail." The personal growth aspect of vocational education was one that was emphasized by most students. For Ricky Reed the Secondary Vice President for OEA this came through the "election of student leaders." Pamela Swanigan, another OEA officer, credited "the completion of several committee projects will result in attaining leadership qualities." For many students their personal success stories started with the completion of a responsibility on a chapter level. For the future it is important "that chapter advisers complete the obligations they have to their students and chapter members complete their obligations to themselves," in the words of Pamela Swanigan from Michigan. The one common denominator among every student I met with was people. They saw vocational education as an avenue towards meeting people, learning to work with them, to communicate their ideas, to develop respect for other's opinions, "the realization of the importance of human relations in any career," as Joan Flanagan Kreutz, an officer of FBLA-PBL, expressed it, "The future of vocational education must realize its potential for people and not products." To quote Deb Huebner, "Vocational education invests in human resources, the most important resources of any nation." Recognition of the individual is a challenge issued to the future by the student perspective. Tommy Cole from Bowling Green, Kentucky believes that "Building elements of strong leadership and self-confidence is needed in aggressive, growing communities." And it is "the chance to succeed and become an individual" that is the key to the future of America as well as vocational education. Thus, the future of vocational education from a student perspective is the strong support and participation of the vocational student organizations: Future Homemakers of America, Future Farmers of America, Future Business Leaders of America, Distributive Education Clubs of America, Vocational Industrial Clubs of America and Office Education Association.

An insight that students have, but one that does not seem to be shared by the formers of vocational education programs, is the "wholeness" and interrelation between the various areas. Our future is not fragmented into areas of business and home and industry but viewed wholistically. Why then is vocational education so fragmented? Joan Flanagan Kruetz from Fort Morgan, Colorado expressed the common sentiment that there be "more interchange between vocational education programs to combine similar information and separate specific information."

Cooperation among people is hampered by some of those stone age attitudes towards male and female roles mentioned earlier. Vocational education should be the first field where individuals are evaluated on their potential and performance rather than their sex. In our changing society we are challenged to make full use of our total human potential and to break down the artificial barriers to

individual fulfillment. This must start with our semi-automatic scheduling of girls into home economics and boys into shop. The skills to build the families of tomorrow must be nurtured in both men and women. The evidence for this can be seen in how many of you raise your hands when I ask you, "Are you part of a family?" As more families find one pay check too difficult to live on, we will see more and more women entering career fields. But this consideration of equality of opportunity regardless of sex goes beyond the economics of the family situation to the roots of human individuality as a basis of our American society.

Change is an ever present phenomena in our world today. New techniques, new technology, new attitudes are revolutionizing daily the vocational careers that form the student future. The needs of the "established student," by that I mean a student already launched in his or her career field, must be recognized and met by vocational education.

It was a Future Farmer of America who mentioned that his grandfather was a pretty sharp farmer but needed to catch up on new methods, ". . . but of course he was too busy." Vocational education must break down the barriers of high school or college graduation. Additional areas for the expansion of vocational education are to those out-of-school youth and others not easily reached by a static, four-walls calssroom.

Vocational education must expand the scope of its programs to meet the demands that are being placed up it by the new technology. This means "developing and implementing courses that are meaningful, challenging, relevant and accessible for ALL youth and adults." These words escape the tendency to become hollow words and empty phrases when the student is given the opportunity for "hands-on" experience. Nicholas Clementi from Racine, Wisconsin, says this eloquently, "vocational education should provide an education based on realism rather than idealism. It is only through dealing with realistic situations does an individual gain the knowledge and insight which will allow for working on practical projects to make idealistic dreams a reality." Vocational education is experience and as you and I both know, there is no substitute for experience.

Once a student has acquired experience there remains the "what now?" of entering the job market. I remember talking to Liz Higuera, a senior graduating from Cheney High School, Cheney, Washington. Liz was a friendly, intelligent and thoughtful Future Farmer of America. I asked her, "So how does vocational agriculture apply to your future? Do you want to run a farm?" "Yes, she said, "but I probably never will." "Why not?" I had to ask her. "Because . . . well I'm one of eight kids and our farm isn't very big and I just won't get a chance to get one." "How about if someone just gave you a farm and said run it, could you?" "Of course," she said, "I would love to." "What now?" This is pressing question asked by every Liz Higuera across the nation both in vocational agriculture and in the other vocational areas. "What now?" when entering the job market is a question that vocational education must answer for the future of its students. The transition from school to career is seen as a future imperative of vocational education.

All the questions and dilemmas of the student facing the future are contained in one of my favorite posters: "Who am I? Who am I that I think? Who am I that I think I can change? Who am I that I think I can change the world?" Let me introduce you to just one more person who found some of these answers in vocational education. It was a sunny Saturday in April when I drove the 100 miles or so fron Spokane to Pullman, Washington. There in the Home Economics auditorium on Washington State's campus I led a workshop on personal freedom. While the students were involved in an activity the state consultant, Margie Lowrance, came up to me and said there was someone here who wanted to talk with me. And then I met Joanne. She is about medium height with dark brown hair and bright brown eyes. "FHA has really helped me to grow and I want to share this with you," she said. I smiled and nodded encouragement. "You see," she said, "I have diabetes and I'm going blind."

I didn't hear her next few words as I contemplated what she had said. Darkness when you could once see light . . . how do you face a future like that? Her next words told me the answer she had found. "FHA has helped me to make the most of my opportunities and I have decided to go to a state school for the blind so I can learn brail and how to get around on my own." You know, I still think of Joanne Kuntz from Colfax, Washington, and her courage and I reflect that her future may be visually black but still bright with hope and opportunity. The future of all vocational education students can be filled with that same courage and promise and hope if the opportunity is but made available to them through: First, teaching the skills needed for living as well as for making a living. Second, vocational education is viewed as worthwhile to all students and its programs are promoted to the legislatures and general public. Third, that the vocational student organizations are supported as a vital part of vocational education programs and that increased emphasis be placed on working with people, developing self confidence, encouraging leadership, and recognizing the individual. Fourth, cooperation be achieved between the various areas of vocational education and all areas be taught in a wholistic manner. Fifth, the artificial barriers to full participation because of sex be removed. Sixth, vocational education programs be expanded to reach out to the established student and those others not easily reached by a conventional classroom. Seventh, new programs based on our rapidly advancing technology should be developed and more opportunity should be available for work experience. Eighth, vocational education must go beyond the classroom to help place students within the career field of their choice. Ninth, that we keep communicating with each other to determine the future.

For a moment—close your eyes—experience darkness—can you see the light of the future dawning—can you see the student perspective? If you can't, remember, this was an invitation to dialogue.

SECTION VI: DELIVERY SYSTEMS FOR VOCATIONAL EDUCATION

COMPREHENSIVE COMPETENCE BASED EDUCATION—A BRIDGE BETWEEN LIBERAL AND APPLIED LEARNING IN POST-SECONDARY EDUCATION: AMERICA'S CONTRIBUTION TO THE FUTURE OF EDUCATION

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The bicentennial year of 1976 has been a year of great manifestations of affection for much that is good within America. Amid the pagentry there have been quiet, individual affirmations of the American dream for a peaceful, prosperous, multi-racial America of hope and good will. Yet 1976 was also a year of the memories of Watergate and of Viet Nam, of Congressional hearings into law-breaking by such institutions as the FBI and the CIA. It has been a year in which the credibility of many American institutions—especially those of government—continues to be questioned.

To even a casual observer of American life a number of factors which have contributed to this collective sense of alientation and skepticism would seem apparent.

- Unemployment remains a serious threat to the economic and mental well-being of many, as adult unemployment hovers near 8% and unemployment of minorities and youth reaches damaging levels of 20 to 30%.

- Awareness of the limits of our fiscal and natural resources constrains our social programs.

- The combination of recession and inflation has squeezed the incomes of our middle class. The continuous, upward mobility of the 1960's has slowed for some—and stopped for many.

That American educational institutions should be subjected to this same questioning and criticism is not surprising. In many ways, it is a healthy phenomonon. One of the proudest traditions of American education has been that of service—to cities and rural areas, to the poor, to the preservation and enhancement of the American culture. Criticisms of higher education have come from a variety of sources and a range of positions on the political spectrum. "Attacked from the right and the left," writes Fred Hechinger in[1] the *Saturday Review* of April 20, 1976, "and abandoned by political moderates, education is in a decline which threatens the survival of American democracy." Criticism of the rationale of American Higher Education has come from Christopher Jenks and Edgar Z. Friedenberg, who contend:

- that American education is a failure in terms of its ability to reduce economic inequality;

- that compulsory schooling has resulted in a distruction of ethnic patterns by molding individuals into "middle class socioeconomic patterns."[2]

More moderate voices have attacked the structure of American Higher Education in a number of ways, from the questioning of efficacy to costs.

- In terms of cost, many of our most prestigious private institutions have reached a level of $6,000 per year for tuition and fees. Yet even low-cost public institutions require an annual investment of nearly 3,000 per year. Middle class families in the $10,000 to $15,000 bracket are simply being squeezed out of traditional higher education.[3]

- Some have attacked the prolonging of youthful adolescence at traditional colleges and universities.

- Others questioned the relevance of educational content, in light of the employment problems faced by college graduates.

There have been challenges regarding the quality of educational outcomes. One of the most dissolutioning and depressing findings concerning the failures of American education has been documented by the National Assessment of Education Progress, a program funded by the United States Office of Education.

What this project attempted to measure was "coping ability"—the ability to master everyday situations—among four age groups: 9, 13, 17, and 26-35. With reference to one such area, the political:

- Two out of five respondents don't know how presidential candidates are selected.

- Only 44% know how to use a ballot correctly.

- 31% cannot suggest some measure of researching a political candidate's background.

- The findings indicate that many Americans are unfamiliar with the political functioning of the country and of the rights guaranteed under the laws.[4]

Finally, there is serious concern that college and university graduates can no longer find jobs suited to their expectations and psychological needs. This concern and apprehension is based on firm and distressing facts:

- A 1973 University of California at Berkeley placement study indicated that many humanities and social science graduates had taken jobs of a routine character in fields unrelated to their training.[5]

- A College Placement Council study of 1975 graduates established that hiring of those with bachelor's degrees declined 18%, masters' degrees declined 17%, and docotoral degrees 20%.[6]

- Projections by the National Center for Educational Statistics indicates that some 250,000 Ph.D.'s will be produced during the 1970's—but Alan Cartter, an authority on academic economics, predicts that only 100,000 faculty positions will be available during this decade.[7]

- Between 1958 and 1972, of the two graduating classes, the proportion of new graduates holding non-professional, or non-managerial jobs rose by 15 and 20% relatively for men and women according to a study by Richard Freeman and Herbert Hollomon of the Center of Policy Alternatives of M.I.T.[8]

These are serious problems. Forcing many poor and middle class citizens out of higher education will have profound effects on the cultural attainments, social mobility, and political processes of this nation. Such a failure of the educational system to develop basic life competencies entails profound consequences both for individuals and for society. And, importantly, the disjunctions between the expectations raised by the educational system for sound, meaningful work and the realities imposed by the economic system threatens the future of higher education. As James O'Toole of the University of Southern California has stated:

- the placing of intelligent and/or highly qualified workers in dull and unchallenging jobs is a prescription for pathology—for the worker, for the employer, and the society.[9]

Before addressing details of proposed substantative change, it might prove helpful to clarify some terms. For too long the concepts of "career education" and "vocational education" have been debated without a proper delineation of their meanings.

To rationalize the discussion concerning "career education" it seems appropriate that it be accepted in its widest, most pluralistic definition. Dr. Sidney Marland offers a generic definition:

- career education can be defined . . . as the totality of educational experiences through which one learns about work.[10]

He further suggests that a broad definition of "work" and "education" may be applied: Thus:

- Work can include unpaid activities in education, social work, politics, and other volunteer activities;

- Education can include learning experiences outside the traditional academic setting.

This definition encompasses a range of educational activities—from strictly technical, highly specialized occupational learning to the purest forms of humane learning—as part of this vast process of working for life.

Attacks on the concept of career education have ranged from politically charged indictments of career education as being a tool of an unjust capitalistics system to concerns expressed over the future role of the humanities in a conscious society:

- career education is viewed as too narrow in scope, too closely connected with vocational education, and too transitory to provide young people with the necessary intellectual and academic background required for living effectively as constructive and contributing members of a democratic society.

- career education is viewed too narrow in training for jobs that do not exist and leaving graduates with insufficient capabilities to adapt to changing employment opportunities and to making the necessary adaptations to multiple career patterns over a life time;

- career education is viewed as glorifying the work ethic and demeans the life of the mind—the humanizing and liberalizing disciplines without which the quality of life in this country would continue to erode.[11]

In addressing a group of vocational and career educators who have spent their careers in rebutting such criticisms, it would be redundant for me to furnish yet another response beyond reference to a recent widely circulated analysis by Dr. Marvin J. Feldman.

Vocational Education itself has long been surrounded with controversy. It need not be so. The time has come when the misconceptions about vocational education may be put to rest. It is widely recognized that the Smith-Hughes Act of 1917 no longer suffices. It is clear that vocational education can no longer be permitted to be viewed as a demeaning form of "putting people in their place." Increasingly vocational education should be understood, accepted—and respected—for itself: a highly specific educational program for providing technical and professional skills, linked to perceived employment opportunities, and part of a continuing educational process to enable the student to achieve capabilities for his or her own educational and occupational advancement. Vocational education is a necessary and beneficient part of the range of educational opportunities in American education.

With these concepts in mind, American Post-Secondary education must increasingly seek a definition of its own purpose. It must recognize and respect a wide range of possibilities in program offerings. It should:

- provide processes that will enable the student to become a capable individual, through the imparting of necessary information, skills, values, and theoretical bases of thought, in whatever lifestyle or occupation the student may choose.

In terms of society, post-secondary education should seek to:

- provide these capable individuals with the tools necessary to play their role in the society, whether their major role is through the employment, or in their voluntary and non-paid activities.

Clearly then, the concept of post-secondary education challenges the older and highly honored concept of higher education, in terms of comprehensiveness, structure, and mission.

As Higher Education Becomes Post-Secondary Education—Challenges and Changes

Responding to the numerous studies of American Higher Education by such organizations as the Carnegie Commission, the Newman Commission, and the Commission for the Financing of Post-Secondary Education, among others, a number of salient concerns about traditional higher education have been addressed. Here are some:

- The traditional concept that a college education occurs between the ages of 18 and 22, on a campus, in a classroom, with a lecturer would have to be questioned. Students can and do learn in a variety of ways throughout their lifetimes, both on and away from a campus.

- Rigid lockstep patterns of courses, sequences, and attendant regulations may not be conducive to effective learning.

- Educational opportunities for returning veterans, the older student, the working student, the part-time student, or the unusual student be made more accessible.

- Much more needs to be done to reach Blacks, Chicanos, Native Americans, the urban and rural poor, both to enhance the quality of their personal lives and to afford them opportunities for a more productive and meaningful life.

- The need to enrich educational options to develop alternatives to occupations overly supplied.

- Educational programs should place renewed emphasis upon the ability to work with people of different backgrounds, social settings, cultural attachments, and intellectual viewpoints for the purpose of bridging the chasms of class and caste, of races and of generations as our society attempts to reintegrate the polarized subcultures of dissent.

- Emerging efforts to measure and qualify educational outcomes and resource allocations must be further refined and implemented on a much broader basis if budgetary priorities can be realistically defined.

- In order to eliminate unnecessary duplications, while providing diverse educational learning experiences, there will need to be developed more effective patterns of inter-institutional cooperation through consortia, "common markets," and shared resources and personnel.

- New information systems tying the world of academia to the world of work will be needed, to facilitate easier access between the two. Some models, such as FIPSE's Oregon State-Wide Career and Educational Information System, are already in existence.

The object of many of these challenges to higher education is to break down the artificial gap between the worlds of work and higher education, and to establish institutions offering a full range of educational opportunities. Current educational thoughts suggests a further fusion between the liberal and applied disciplines. As Willard Wirtz has suggested in *The Boundless Resource:*

- It is imperative, then, that first priority be placed on infusing—in the truest sense—liberal arts and vocational education. This is what the term "career education" implies and should be accepted as meaning.[12]

Statements such as these have drawn considerable hostility from the proponents of the "liberal arts." But what has not been recognized is that there is indeed a career capability implicit in the liberal arts.

- Many of the liberal arts are also applied arts, such as writing, research skill development, business and public management, economics, and the performing arts;

- these arts provide salable skills to their practitioners;

- these arts provide the basis for professional training in many fields, such as law, journalism, medicine, social work and teaching.

Thus, in making provision for needed educational change, it has been recognized that new rationales, methods, and goals are needed for higher education. In light of current economic realities, it should be acknowledged that part of education's function is to provide the student with the means to earn a living, and that all facets of higher education—liberal and applied—do in fact work toward this development. Yet in seeking ways to further enhance higher educational change, it will be necessary to search for a program model which embodies some of the characteristics which will be needed. One such available model is that of vocational education.

Why vocational education? Because it exhibits a number of attributes which establish it as more advanced in its role of service than many aspects of higher education. Some of these are:

- an explicit awareness of the importance of employment and career development, for both the education of the student and the development of his or her working life. As the

Daniel Yankelovich survey has demonstrated, most college and university students feel that career development is an important part of a person's life.[13]

- A much more advanced recognition of the importance of adult and continuing education. As student bodies become older and more diversified, and the impact of post-industrialism results in more shifts of employment for the average worker, education—for personal and job-related advancement—will become more important.

- Vocational education is more pronounced in its movement toward the integration of education into work and other life activities. So that higher education may serve its more diverse clientele, it needs to emulate this recognition of life-long education, providing easier access points and reducing the high costs—both immediate and deferred—of education.

- Increased community involvement in education has long been a facet of vocational education. Binding educational growth to the community of work and society will also aid in binding together the reasons for learning skills, theory and information.

- Finally, and significantly, vocational education has long placed emphasis on the teaching and learning of competencies—the all important outcomes of the educational process.

The firm thrust and direction of educational change must be cognizant of societal realities—and it should be aware of the need for occupational and career development in higher education. As the M.I.T. Study *Work in America* has so clearly demonstrated, work—paid or unpaid, structured or unstructured, but satisfying—is necessary for the good mental and financial health of our society.[14]

Whether an individual chooses a specific occupation for the devotion of his or her time and energies, or chooses to devote a life to self-improvement outside of structured work, it will be necessary to recognize the career needs of these individuals.

This is not to suggest that the humane arts and sciences must be depreciated in our attempts to make education more comprehensive. Indeed, we must recognize that the liberal arts are "non-negotiable"; their value is such that they should be preserved and enhanced. To increase occupational awareness does not invalidate other aims of education, such as personal enlightment, social development, exploration of knowledge, or the search for identity; instead, it gives them point, method and direction. The aims of any comprehensive education should be to open doors, not close them.

At the same time, however, the pseudo-elitism dividing the college and non-college educated, the white collar from the blue collar, the scholar from the businessman—this must be eliminated. As we have come to recognize that work does not stop at the door of the office of factory, so we must learn that the desire for liberal learning and personal development does not stop with a particular socioeconomic class.

The Development of Comprehensive, Competence Based Education—A Range of Pluralistic Learning System

As college-level institutions increasingly focus on the needs of the older student—the part-time student, the unemployed, the underemployed, the dropouts—adults bored with their jobs, or threatened by job obsolescence—they will attempt to build programs that concentrate on individuals who wish to assume greater personal responsibility for their own learning . . .' to learn how to learn."[15]

American colleges and universities, especially those located in urban settings, or in centers of declining population areas, are beginning to show interest in serving their newer constituencies with programs that reflect sensitivities to the differing individual needs and circumstances of their students. Based on initial experience with these newly emerging external study programs, it is possible to indicate some of the critical characteristics that these educational opportunities should possess to respond successfully to diverse student needs.

- Study opportunities would have to be highly flexible in order to meet individual academic and career objectives.

- Just as academic objectives should be individualized, so should teaching and learning methods. Instead of the customary, formal extension course—transported off-campus, there should be an emphasis on independent study and assistance to those who desire such delivery system.

- The overriding goal of such independent study should be the development of life-long learning skills for continual self-teaching and for those who wish to pursue a baccalaureate program on the basis of what a person knows and the skill that he or she has acquired rather than on the basis of formal classes completed. Techniques will have to be devised to assess previous work experience, to evaluate knowledge obtained in non-traditional learning situations, and to determine competencies acquired in various skills.

- New learning technology to be utilized should include cassettes, educational radio and television, and program learning packets.

- Learning centers will be necessary to provide a central location for meeting advisors, picking up learning materials, receiving certain telecasts that requires special equipment, and for occasional seminars and workshops.

- Such programs should not be relegated to second-class citizenship, but instead should be an integral and essential part of faculty load, university budgeting, and administrative concern.

- Academic experience should be of equal quality and rigor as any on-campus course study, but should also recognize that quality is not necessarily measured in terms of credit or determined on the basis of the location of which something is learned. (See Appendix A)

For traditional higher education institutions seeking to provide greater career content in their educational programs, some additional models are available. One such proposal, "The Capstone Program" initiated by Robin Wilson in the *Educational Record* has certain unique characteristics:[16]

- The "Capstone" is a summer or in-term learning program devoted to providing explicitly salable skills to liberal arts students.

- Emphasis would be placed on the acquisition of competencies in technical fields.

- Rather than being part of the degree program, competence-based assessment procedures could be used.

- The sponsoring institution could explicitly credential the competencies acquired.

Others have proposed increasing the use of internship experiences as an occupational development tool. This use of internships would differ from the traditional model, and offer several unique approaches:

- A key aspect of internships would be to develop and encourage community involvement with the institution.

- Socialization of students to the world of work could be better accomplished by experiences demonstrating the skills and attributes necessary to successful entry to the work community.

- Technical and experiential competencies gained by the interning student could be explicitly credentialed by the institution.

There is a new type of higher education institution with a more fundamental commitment to competency based learning, challenging many traditionally held central assumptions regarding the nature and structure of knowledge conveyed through subject matter courses. These "experiential" institutions grant credit for learning activities carried on through life.

A professional organization working with such endeavors, CAEL (Cooperative Assessment of Experiential Learning) has as its stated purpose:

- The assessment of the value and relevance of experiential learning processes to academic institutions, and to provide a method of measurement for such learning.[17]

The members of the CAEL include such institutions as:

- Alverno College, Governor's State University, Hartwick College, Michigan State University, Metropolitan State University of Minnesota, Mount Union College, North Carolina Agricultural and Technical State University, Temple University, University of Akron, University of Evansville, University of Oregon, Staten Island Community College.[18]

One such college that has gone so far as to replace such traditional higher education ingredients as courses, credits, discipline-based academic departments and campus buildings and facilities is represented by Metropolitan State University. This is an upper division, urban institution, fully accredited by the N.C.A., designed to serve adults in the Minneapolis-St. Paul metropolitan area "whose needs were not being met by other post-secondary institutions" that proudly stipulates as its central educational tenet:

- The University vests in each individual student responsibility for and authority over his or her education . . . (and) vests in its officers and faculty responsibility for and authority over teaching and for determining whether or not a student has given adequate evidence that he or she has achieved his or her educational objectives.[19]

Entirely predicated upon a performance-based educational model, the institution recommends the award of a B.A. degree when a student can demonstrate "a high level of competence in each of these areas of life":

- communications and basic learning;
- the responsibilities of being a member of a self-governing community;
- vocational or work,
- avocational or recreational.[20]

Within this framework of expectations the institution insists that the student "must know and employ many of the arts, sciences, humanities and applied disciplines" and that he or she with some faculty assistance or counsel will develop an educational degree plan following careful examination of personal needs, learning objectives, and learning strategies; this will also involve the careful identification and utilization of a diversity of community-based learning resources with the avowed aim of developing graduates who will be independent, self-directed, continuous learners throughout their lives.

Central to the educational format of M.S.U. are these four major components:

- an orientational, individualized, educational planning course (IEPC) and a faculty advising process (core faculty as well as participating community based faculty) which assists the student in the implementation of the degree plan or "contract" . . . by "encouraging and monitoring the student's progress, by giving advice on program content, and by referring the student to educational resources . . . ";

- a learning contract designated as learning-assessment agreement which evaluates prior competencies, outlines learning strategies, and specifies verification and measurement techniques for "the attainment of future competencies";

- an expert or professional who will serve as learning evaluator "recognized in his field as one who is competent in the subject area of the competence and who knows the measurement techniques pertaining to that area";

- a narrative transcript which attempts to "describe specifically what competencies the student has demonstrated, the process by which these competencies were gained, and the evaluations of those competencies which the student has presented to the university."[21]

Obviously, competencies are difficult to assess, especially in the more sophisticated conceptual and normative realms of learning. Still, significant pioneering work is being done at Metro State University, Alverno College (Michigan) and by the other members of CAEL who experiment with a variety of appraoches to measurement techniques (written examinations, simulation exercises, performance tests, product evaluation, situational observation, to mention a few) to discern identifiable levels of attainment and abstraction.

Colleges and universities have long insisted that their liberal arts curriculum is particularly aimed at developing the student's critical capacities, analytical thought processes, and communication skills. Undoubtedly, there are many hundreds of thousands of alumni among our institutions of higher learning who will testify that this indeed was a significant outcome of their courses in the humanities, the social sciences, and philosophy.

Yet, there are also many thousands of students—especially those who are older, or those who dropped out because they felt uninvolved or uninspired, to whom more formal knowledge and a subject matter-based course of study was not and will not be as meaningful as a more concrete problem-solving setting which combines explicitly the theoretical with the practical.

With the acceleration of knowledge obsolescence and with the acknowledged low retention rate of memorized data what many individuals need to learn "is the ability to learn—to think critically, identify problems, analyze courses of action, pose solutions."[22]

Largely as an outgrowth of carefully targeted grants made by the Fund for the Improvement for Post-Secondary Education (FIPSE) in H.E.W. a number of colleges and universities (both public and private) proceeded to experiment with significant innovative models to provide access and educational opportunity for the adult learner who was seeking an alternative—a non-traditional path to higher education.

While it is, of course, too soon to assess the impact of such developments upon post-secondary education generally, it is not unlikely that a steeply declining birth-rate and the eventual greatly reduced pool of the 18-22 age group may further intensify collegiate interest in these models in the middle 1980's.

Even traditional educational institutions of higher education, it seems to me, will have to confront the challenges inherent in the competence-based approach to teaching and learning.

The values of examining undergraduate and gradute programs in terms of performance objectives is enormous and may not safely be ignored. As funding sources decline and externally imposed planning requirements become more demanding, few academic departments can avoid for long a more careful definition of departmental goals, objectives, adn learning strategies. Analytically, competence measures can serve to sharpen the documentation for resource allocation and budgetary control. While no one will contend responsibly the sufficiency of existing quantitative measures to delineate cost-benefit ratios, those who fund and support the higher education establishment could do worse than initiate a dialogue that reduces excessive and unwarranted reliance on educational myths or on unexamined premises of educational promises and claims.

Restoring Credibility–The Bicentennial Challenge

Despite the tremendous contribution that America's schools, colleges and universities have made to our national well-being and to the growth of the G.N.P., education and educators along with other institutions in American life persistingly experience low, if not declining, levels of public credibility.

Confidence in America's educational institutions, their goals, their objections, their structures, their programs and their services will have to be re-earned—honorably, painfully and gradually. There are no gimmics that can satisfy the genuine doubts and wonderments that many Americans express about the sufficiency and quality of educational institutions. Fortunately the strategies for recapturing public confidence in our educational processes and roles are not that mysterious. We will have to talk sense to our fellow citizens. A frank admission of our limitations and a more modest estimate of our potential might prove helpful. As a matter of fact, it might not be inappropriate to point up some of the what this nation's schools and colleges and universities may not be able to do single-handedly.

While we are undoubtedly profoundly affected by the fluctuations of the business cycles, by the pressures of inflation, by the rise in unemployment, underemployment, and by economic uncertainties, we certainly are not the primary determinant of these events and forces. Our institutions and their operating budgets are greatly affected by rising costs and higher interest rates, but the critical decisions tht shape these policies are not made in our board rooms, faculty lounges, or presidential offices. Certainly American education has failed for all too long to assume its share of responsibility in America's delayed concern for the rights of blacks, native Americans, women and other minorities. While the gap between rich and poor is still great and while there are still a million children poorly fed, poorly attend medically and poorly educated, there are other institutions as well that must share our guilt. This bicentennial convention then, while acknowledging our involvement in the

broader community and its problems, can offer us a remarkable opportunity to clarify the particular sets of challenges with which we will have to work in the future. We might call it a Bicentennial Charter—an emerging agenda for post-secondary education—vocational—technical—and liberal.

Let this then, be my suggestion for a ten point agenda for the future of our systems of post-secondary education. In the years ahead:

1. Successful preparation for an effective life of work, of leisure and of responsible citizenship will require the cooperation of more than one system of education—it will very likely involve a career pattern of education which will utilize selected aspects of vocational education and liberal education, formal education and informal education, campus-based, community or even industry-based education, education for credit and education without credit—and not least—learning for the love of learning.

2. The learner must be the center of our post-secondary spectrum, not the institutions. There must be a common market of educational opportunities with easy access, ready mobility and flexible programming so individuals can move through various institutional opportunities with the greatest likelihood of personal success and a minimum of "bureaucratic obstruction."

3. America's political and social pluralism has a right to expect from its post-secondary institutions that they view each other with a sense of mutual respect and that cooperation prevails between the sectors vocational and non-vocational, between the professional and pre-professional.

4. All of American post-secondary institutions have a vital stake in confronting the forces of educational reaction—be they from the right and from the left, from within or without—when they promise the American people that what is needed is less education when what is needed realistically is more education—more effective teaching, more diverse programs as well as a greater variety in educational delivery systems.

5. Whatever the detail of public financial support for those willing and able to benefit from additional education, such approaches must not permit tuitions to rise to a level where they discourage those who wish an education for the opportunity of continued self-development and the optimization of personal competencies.

6. An effective working partnership between the various components of the post-secondary spectrum must come together to the point where state-wide planning effectively involves meaningful review of such matters as programs, budgets, and capital developments, in order to avoid, wherever practicable, waste and duplication, unwarranted expansion and unwarranted elimination or reduction of educational entry and access opportunities.

7. Where collective bargaining has already been established great effort should be made between representatives of faculties and representatives of governing boards to achieve a contract which maximizes programmatic and curriculum flexibility so that the institutions of learning can respond to changing student interests and changing strategies and technologies or providing educational services.

8. There is a great need to improve the quality and scope of information available about various educational and career options as individuals move through life from adolescence to

senior citizenship, stressing bridging the work and education gap and emphasizing the availability of mechanisms for the assessment of prior learning and learning accomplished in non-academic settings.

9. When resources become scarce and educational costs continue to rise in the necessarily labor intensive industry of higher education, public instance will demand from the academic profession, better instruments and better methods of assuring the professional competence of teachers, whether full-time or part-tir e, whether academy-based of community-based . . . and of performance standards that define expectations and measures of quality and excellence—however difficult the task and however tentative the results.

10. Lastly, and probably most significantly, let us ask of tomorrow's learner not so much where they learned what—which college or university—from whom they learned what—which professor in which course—but what they can do. They have demonstrated competencies they have acquired and are willing to present for professional acknowledgment, verification, and where appropirate, for certification.

In closing, a few words of caution must be expressed. We cannot expect these educational reforms comprising a comprehsive, competency based educational system to fully solve the problems of worker dissatisfaction, unemployment and underemployment. Far too many factors—the strength of the economy, the kind and extent of fiscal and monetary policies, demographic and attitudinal changes—are beyond the immediate control and sphere of the educational system. And although our colleges and universities can indeed be a focal point of change, we must recognize that many changes are essentially politically determined changes, and must be debated and resolved in the proper political arena.

What, then, can the systems of higher education accomplish aside from coordinating significant research and community service. They can and should teach and assess competencies necessary for their clients—their students—most of whom seem to want to reach twin objectives—the ability to earn a living and to live to the fullest excellence in quality and style of which they are capable. As educators, then, we must, to paraphrase John Gardner, teach and respect both good plumbing and good philosophy. If we do not, neither our pipes, nor our philosophies, nor our promises, will hold water.

APPENDIX A

A recent study conducted jointly by the Educational Testing Service and the College Entrance Examination Board in Iowa revealed something of the desire for non-traditional post-secondary learning opportunities among an older constituency than that customarily served by post-secondary education. Entitled *The Third Century: Postsecondary Planning for the Nontraditional Learner,*[1] it presented these findings:

- approximately 660,000 Iowans over the age of 27 are interested in resuming their education, but of this total more than 450,000 feel they cannot;
- of this group, roughly two-thirds are women, most are between 20 and 35, have families, and tend to have middle-class incomes.
- about 200,000 respondents desired a formal academic program, with half aiming toward a graduate or professional degree.
- another 200,000 expressed an interest in individualized educational information, counseling, or assessment.

Another development related to continuing adult education was reported from Southern Illinois University,[2] whose board of trustees has voted to make the University's "Listener's Program" a permanent offering. This program enabled participants, for a ten dollar fee, to join classes (without credit) in the University's undergraduate program offerings. By removing the formal requirements from this type of class attendance, this program hopes to increase adult interest in continuing post-secondary education.

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[1] *Higher Education Daily*, June 10, 1976.

[2] *Higher Education Daily*, July 19, 1976.

FOOTNOTES

[1] Hechinger, Fred M.: "Murder in Academe: The Demise of Education" *Saturday Review*, March 20, 1976. p. 2 of reprint.

[2] Ibid.

[3] Ibid.

[4] Vandermyn, Gaye: "America's Uninformed Electorate" *Compact* January-February 1974 p. 11. Citing *Political Knowledge and Attitudes* a report of the National Assessment of Education Progress.

[5] Gordon, Margaret S.: "The Labor Market and Student Interests" *Liberal Education* v. 61 no. 2 May, 1975 pp. 153.

[6] *The Chronicle of Higher Education* July 7, 1975. Citation is to the College Placement Council.

[7] Cartter, Alan, quoted in "Academic Jobs: Stability in the '70's" *The Chronicle of Higher Education* December 9, 1974 p. 5.

[8] "Murder in Academe: The Demise of Education" p. 2 of reprint.

[9] O'Toole, James: "The Reserve Army of the Underemployed" *Change*, May 1975, p. 28.

[10] Marland, Sidney P.: *Career Education: A Proposal for Reform* New York: McGraw-Hill, 1974. p. 307.

[11] Grubb, W. Norton, and Lazerson, Marvin: "Rally 'Round the Workplace: Continuities and Fallacies in Career Education" *Harvard Educational Review* v. 45 no. 4 November, 1975.

[12] Wirtz, Willard, quoted in Marland, Sidney P.: "The College Board and the Work-Education Dilemma" address to the College Entrance Examination Board, May, 1976.

[13] Yankelovich, Danial, and Clark, Ruth: "College and Non-College Youth Values" *Change* September, 1974, p. 46.

[14] *O'Toole, James, et. al.: Work in America* Cambridge, Mass.: MIT Press 1972. p. xvi of Summary.

[15] Edgerton, Russ: "Education and Work/Life." Summary paper presented for the Fund for the Improvement of Post-Secondary Education, p. 3.

[16] Wilson, Robin: "Vocational Training for Liberal Arts Students: Two Strings to the Bow" *Educational Record* Spring 1975, p. 136.

[17] Radloff, Barbara: "There's More Than One Way to Earn a College Degree" *Carnagie Quarterly* v. 23 no. 4, Fall 1975, p. 4.

[18] Various institutions participate in differeing aspects of CAEL programs. The listing given was of those participating in the CAEL Faculty Development program. Other institutions involved with CAEL in some of its other programs are: Antioch College, Community College of Vermont, The Consortium of California State University and Colleges, Florida International University, Memphis State University, San Francisco State University, University of Kentucky, and Webster College.

[19] *Metropolitan State University CAEL Operational Models Report* June, 1976. p. 4.

[20] Ibid., p. 8.

[21] Ibid., pp. 5-8.

[22] Edgerton, Russ: "Education and Work/Life" p. 3

VOCATIONAL EDUCATION DELIVERY SYSTEMS OF THE FUTURE

Carolyn Warner
Arizona Superintendent of Public Instruction

It is appropriate that we remember today is Columbus Day. Perhaps since we are in Minnesota, we also should give a tip of the hat to Lief Erickson for leading the way. Maybe we should remember that Mr. Columbus began not knowing for certain where he was going. When he arrived here, he was not positive where he was, and as you all so well know, he went the entire way on borrowed money. I am hopeful that is not the situation we find ourselves in today.

Let me, if I might, indicate that this Bicentennial Conference for Vocational Education may very well be a watershed. From this conference, we may build a national policy that has significance and meaning as well as value to our United States of America. I am impressed that we are at the time in our history where we can begin to look at our tradition yesterday, our position today, and our hope for tomorrow. Our bicentennial year needs to be much more than flying banners and using the red, white, and blue. Our Bicentennial year should be a year of perspective. This group, assembled here in Minneapolis consists of the leaders of our nation. From this group, it either will or will not happen. I am voting in favor of "it will happen." Because as leaders, as individual leaders in our nation, you can make a difference by making education relevant, meaningful, and significant for all of our young people.

I perceive your purpose in three areas. First, I believe that the role of leadership requires that we convert large problems into opportunities. You are capable of that, you do it all the time. Second, you need to inspire people to meet difficult challenges. You can do it. You do it all the time. Finally, I feel we need to think creatively, constructively about our purpose, and that is the reason for this conference today. To enable us to think. To enable us to stand back and develop a perspective. We are likely to find that indeed we are in a forest much of the time, but rarely have an opportunity to see beyond the trees. But it is here that we can look to and think about our purpose.

Our country's birthday presents many interesting opportunities. It gives us the opportunity to be creative and to develop a perspective. I had a birthday this summer. It was an awe inspiring event. I ran for another political office. I lost, but in the process, a very good friend of mine named Erma Bombeck, had a birthday party for me. It was a fund raiser and a very interesting affair. I have never been so insulted in my entire life. Erma had many marvelous things to say, at least I had thought they were going to be marvelous. One of the things she said was, "I have heard it said that Carolyn is so old that she was at the assassination of Lincoln." Then Erma said, "I know that isn't true. She couldn't get a sitter that night." She said that, "Carolyn is at that marvelous age in life when she hears two voices; one says 'why not?' and the other says 'why bother?' ". I have always enjoyed Erma Bombeck, and I can understand what she was saying. It brought a degree of reality to me. I always thought that life began at 40, but I found out that a long of other things do too, like arthritis, gout, and falling hair. But the fact is, the first 200 years of our history have provided us with the record similar to the way Schopenhauer calls our first 40 years the text, the next period, the commentary. How are we going to relate our history and our tradition to our actions in the future? That, for education, can well be determined by the leadership that is represented in the three rooms assembled here this morning.

I would like to start by relating our past with our present and perhaps projecting it into our future by using the work of one of our school children. Students excite me. They turn me on. Their

enthusiasm, their vivacity, their creativity gives many of us the energy we absolutely must have to continue to meet the challenges and difficult problems that are before us.

There was a young girl in Arizona who was given a class assignment by her history teacher. That assignment was for her to carefully consider the events of the day, to research a little known subject, go back and find a fact that is not commonly known and connect the two. Now I would like to present to you her work and to know when I finish, whether or not you think she succeeded. This is the work of a sixteen-year-old high school student named Sue Benjamin.

Sue Benjamin wrote:

I'm sure you've heard or soon will hear
Of the midnight ride of Paul Revere.
I wonder if Henry Longfellow knew
That a young girl made that ride, too.

Her name, Sybil Luddington, is not easy to forget
It must have slipped Henry's mind, I'll bet.
So I'm writing this just so you won't forget it
And to see that Revere doesn't keep all the credit.

Because if we'd left everything to those men
We may never have heard of poor Sybil again.
So I'll tell you about her if you insist
And I'll give you the story that Longfellow missed.

When the news from her father warned of an attack,
She woke up the townsmen who went to fight back.
She rode through the streets and the dark of the night,
Shouting, "The British are coming! Fall out and fight!"

She rode 40 miles in the dark and the cold
Which is quite an accomplishment for a 16-year-old.
Dear Paul got the credit, and he only rode ten
But isn't that typical of chauvinist men?

The Boundless Resource, authored by Willard Wirtz, reports that for many years, more and more young people have been preparing themselves for futures that have "No Help Wanted" signs when they finally arrive. Other occupations, meanwhile, have gone begging, not enough skilled people to fill them. He continues, saying that the decay at the bridges between education and work has proceeded faster than have the bridge builders. You are the bridge builders. As the bridge builders, you need to consider delivery systems that more closely match the needs of the job market with the education being offered.

We find ourselves, in America today, in the midst of educational reform. The beginnings of the current educational reform movement are commonly identified with the successful launching of the first Russian satellite in 1957. That launching set off blasts of recrimination concerning the effectiveness of our schools and initiated accelerated curriculum revision of all types. But the roots of the reform movement in education go far beyond 1957 and Sputnik.

Back in 384 B.C. there was a man who was looking to reform in education, and trying to determine: "What is the purpose?"; "What is the reason?"; "What are the components of an educational system?" His name was Aristotle, and he said, "As things are, mankind are by no means agreed about the things to be taught; whether we look to virtue, or the best life, the existing practice is perplexing." He continued saying, "No one knowing on what principle we should proceed, should the useful in life, or should virtue, or should the higher knowledge be the aim of our training?" All these options have been entertained before. Now here we are in 1976, asking the same questions, and considering the same propositions.

Reform is not new. It has been going on forever. Herbert Spencer, in an 1859 essay titled *What Knowledge is Most Worth*, discussed the needs of curriculum. He said that every curriculum needs to be based on human needs of health and safety, vocation, family, citizenship and leisure.

Not to be outdone in 1918, the Commission on the Reorganization of Secondary Education issued an important document titled, *Cardinal Principles of Secondary Education.* They talked about the importance of education for complete living in a democratic society. They said we need to study health, command of functional processes, worthy home membership, vocation, citizenship, worthy use of leisure time, and ethical character.

In 1938, the Educational Policies Commission published a significant document, formulating the purposes of secondary schools. They identified four priorities: centering around the person himself, his relationship to others in home and community, the creation and use of material wealth, and sociocivic activities.

In 1959, the Project on the Instructional Program of the Public Schools stated in part, "the decision to include or exclude particular school subjects outside of class activities, should be based on, first, the priorities assigned to the school and other agencies, second, data about learners in human material resources available in the school and in the community." The questions raised by Aristotle continue.

One of Aristotle's friends, Sophocles proposed a tenet worthy of close scrutiny today. "One must learn," Sophocles said, "by doing the thing, for though you think you know it, you have no certainty until you try." Sophocles simply expressed that theory is necessary, so that you may come to the point where you believe you know it, but you need "hands on" experience because you can never be sure until you try. Perhaps, just perhaps, the trouble today is that we spend too much time preparing the path for the child. We need to reorder our emphais, and prepare the child for the path ahead.

In our hearts and in our words, we need to insert in our Declaration some words like these: that all persons are endowed by their Creator, with certain inescapable duties, that among these duties are work, learning, and the pursuit of responsibility. Perhaps in our 200th year, it is well that we look to purpose as well as to futures and to pasts. We have come far; no one questions it. But the quickening pace of change means we must go much farther in order to catch up with other segments of our society.

Fourteen, think about this, emotionally if you will, as well as intellectually, just fourteen short years ago, President John F. Kennedy set the moon goal and rallied the nation into the exciting adventure of space. Speaking to a group of people in Texas, the day before he was killed, President Kennedy compared the possibility of a man going to the moon with a man approaching a wall that seemed too high to climb. President Kennedy stated, "We will climb this wall, and we shall then

explore the wonders on the other side." We, as a nation, committed ourselves to a purpose, and you know where we are today. Do not let anyone tell you that we are not a nation that can make a commitment common to us all, because we can. If we understand that our most important responsibility as citizens of our nation and our world is children, then we can mobilize our forces and efforts and put together a program which will serve young people well.

Every child in our land is important. As we see a declining birth rate, as we look to zero population increase, we are beginning to find that we live in an age of scarcity, a scarcity of people. Any item that becomes scarce increases in value. Every child, regardless of his or her capabilities, must have an opportunity in our great land. We can make it possible. This conference today can be the platform from which we begin to ascend that wall and explore the wonders on the other side.

You may know the story of the little girl who ran up to her mother and said, "Mommy, why is it you always give Mary the biggest piece of cake?" And the mother who loved both of her little girls dearly said, "Why Honey, I give Mary the biggest piece of cake because she's a bigger girl than you are." Then she said, "I know that Mommy, and she always will be if you keep giving her the biggest piece of cake." Equal slices of cake for each of our children has to be one of the exciting possibilities we can find on the other side of that high wall. The one imperative reason for our needed educational reform is that the American school must begin to relate learning to life. Many of the situations in our public schools are simply unreal. They do not relate. It takes a brilliant and a very perceptive person to connect in the environment of our classroom today.

Learning In – Life	As Compared To – The Classroom
The universe is the classroom	Usually confined to the site, building and particular room
Learning occurs in multi-age groups	Students are grouped by chronological age and subject pre-requisites
One can have privacy and independence in their learning experiences	Students must pursue their learning experiences in groups, somewhat similar to their own learning ability variances
One may learn from another—a peer, an elder person, and from persons younger than they	Students are taught to learn from the adults and the adult world experiences
One paces himself in his particular interests and inclinations	Students are held back or forced ahead by the pace of the "average" of the group
One is measured in relation to his individual performance	Students are measured by the norm of the group
One develops skills that are needed now	Trainining is often for skills no longer in demand—and possibly extinct in the future

Learning experiences are meaningful, a part of life, and interesting	Learning experiences are often experiences of a past era, sterile and not meaningful
The teachers are all of the people—rich and poor; brown, yellow, black and white; educated and noneducated; young and old	The teachers are only a small sampling of only some of the people
The environment includes all aspects in contact with the student, in the universe	Simulation of the things of the universe, and often, very little, if any attempt is directed towards simulation
The curriculum is as of the moment—it is now—it is new	Curriculum content is largely departmentalized, nonrelated to other disciplines, and predetermined.

They say that an elderly gentleman was asked the question, "Which is worse, ignorance or apathy?" He shot back a very well thought out answer, "I don't know, and I don't care." I even saw a sign on the freeway concerning apathy. It says, "Apathy is contagious, but who cares?" We cannot permit our students to become apathetic, in a sterile environment, and we cannot permit them to move through school and remain ignorant. In the Delivery System for Vocational Education for the Future, this is of primary importance and we must consider an environment conducive to motivation.

Our first question is: how can we develop a Delivery System for local districts that is more meaningful for the individual student, a system that tells it like it is, a system that is interesting, challenging, and related to life's experiences, a system that looks ahead to tomorrow's problems, instead of merely teaching the antiquated facts of yesterday?

Let us begin with consideration of educational goals, keeping in mind that improvement is for the benefit of the student. Our goal should be to prepare the student to be a capable social human being. A portion of this goal prepares the student to work. Another portion is wise use of leisure time. Another is continued learning for understanding, and yet another portion is feeling the need to be of service to our fellow man. I suggest that increased experiences might be a solution which aids the student to better understand, to better appreciate, to be a benefit to himself and to his fellow man. Everyone—students, teachers, administrators, parents, patrons—should work together in the formulation of desirable experiences for the student. It is vital that our entire constituency becomes involved if those experiences are to be real. We need them—real world experiences for our students today. Kindergarten through twelfth grade and beyond.

For example, an *in-depth intellectual experience* is essential to developing the ability to live a good life as well as to make a good living. The student must have knowledge of data collection tools, must have time for reading and viewing, time to gather information, clarify, meditate, plan future activities—vital experiences for our young in our rapidly changing society.

The student, in addition to in-depth intellectual experiences, must have *service experiences.* Since one half of our life may be inward, we are only healthy in the other half projects outward. The student needs to demonstrate participation in the practice of the Golden Rule: "Do unto others as you would have them do unto you," and begin to understand what that means in our society. Each citizen is expected to be responsible to others and responsible for his or her own present and future.

Our students need to have opportunities to assist in hospitals, and churches, and libraries, and community projects for people in need. No salary—doing for the value of sharing, of giving, and of living. This is a part of the educational experience that often is totally missing, and we then wonder why our youngsters are so introspective.

Work experiences must be a part of education. A student needs to demonstrate the ability to participate in successful work experience with pay. The schools should be responsible for arranging the experience—the contract, supervision, evaluation—in cooperation with the employer. The goal is to learn the enjoyment of work well done, and the rewards for work satisfactorily completed.

Our children need a *teaching experience.* They should not receive any type of salary rather they should receive the reward of teaching others. Their duties would of course be somewhat limited to the confines of the law; however, they could function as laboratory technicians, tutors in their areas of strength, clerical assignments, teacher aide duties. They could and should aid, on an individual basis, certain students by listening, correcting, reinforcing and as it always is with the teacher, learning.

There is always a need for *exchange experiences.* Experiencing other environments, other situations, learning elsewhere than the small world of the campus, of the community. Supervision and evaluation provided by the district, guidelines, formulated by the involved district, can provide continued interest and continued improvement.

Several months back, at a Chief State School Officers Conference in Washington, D.C., the Reverend Jessie Jackson spoke. One of his statements I especially appreciate was "It is not your aptitude, but it is your attitude that determines your altitude, if you have intestinal fortitude." Not aptitude, but attitude, if you have intestinal fortitude.

The attitude which we share with the community is very important to determining the success of our product. I have been involved in education for a long while, and I have tried to learn to be proper, but fortunately cheerfulness and good humor creep in. We had better do a better job of telling the people that pay the bill about the successes of education. It is the most successful institution in the United States of America. Since when did you hear anybody tell you that out loud? We need to connect our perspective with our present and project it into the future. We need to talk about the "can do" institution . . . education. It is important because those people who pay the bill want to know about the product. They want to know if their hard earned dollar is buying them a product. We need to tell them the truth. The good news.

There are three types of people, I am told. There are the people who watch things happen, then there are those people who watch and say, "What happened?" You are the people who make things happen, and there will always be those who are not just certain what did happen, but the "can do" people are here, today. If you take those responsibilities and opportunities seriously, you can have so profound an influence on the future, that it will be like climbing that wall and experiencing the wonders of the other side.

A great many good things have happened in education. Project Baseline, a report to the nation on vocational education, reports some of your achievement. They are many, they are profound, but they are not told, they are not understood publicly. Publicly means the people that pay the bill. How many people in this land know about your successes? How many know that in 1974 enrollment exceeded 13.5 million. That is an increase of over 28% since 1971. Who knows it? Did we tell it to someone? Federal expenditures for vocational education increased, and they indeed had the effect

of stimulating large state and local investments in 1974. 84% of the funds for vocational education were from state and local sources. We must tell the people what they are buying with their vocational education dollar.

Chief state school officers have been working on a project for some time, and now have a Statement of Principle concerning career and vocational education. Who knows it? I know it, and the other 49 Chief State School Officers know it. We need to tell our story. We need to institute these learning opportunities for our children in the early elementary years and all the way through formal education. During the early 1970's there has been a remarkable growth. I am particularly proud that it amounts to just over 40% of the tital population in the age group of 15 to 19 years that is served through vocational education at the secondary level. I am particularly proud that it amounts to just over 40% of the total population in the age group of 15 to 19 years and is served through vocational education at the secondary level. I am particularly impressed, if you will forgive me, by our work in Arizona, growth in student enrollment 46%, six percentage points above the national average. In 1976 the percentage of students in Arizona enrolled in vocational education courses may be close to 70%. That is an astonishing figure! Unbelievable growth. The growing interest in vocational education is unprecedented. It appears to be the pendulum swinging back from the overreaction to what we considered to be the inadequacies of our education system following the launching of Sputnik.

We overproduce professions for a labor market in which paraprofessional and technical skills are in greater demand. A major problem exists in our ability to monitor and evaluate what we are doing in vocational education, because we are not all talking about the same thing. The classifications of occupations bear directly upon the effectiveness with which vocational education can deal with the needs of the employment market. There are no less than three classifications in current use. I understand that a fourth is in the making. Our governmental bureaucracies in all their wisdom do not seem to be able to agree on one system. The U.S. Office of Education, codes occupations one way, the Department of Labor codes in another way, the Department of Commerce uses still another, and the fourth will be called the Standard Occupational Classification System. There is no wonder we in education are having difficulty gathering reliable data about occupational information, not to mention the supply, and the demand, and the need. We must be able to do this with some knowledge and some degree of standardization, if we are able to plan our program, monitor and evaluate results.

We know where we are. We know that there are many statistics that we could enumerate that show the success of vocational education in this country. We know that career education opportunities for our children are going to cause them to develop areas of interest in one or several clusters. The fact of the matter is, before we really can get our show on the road, we must look at reality. We glorify the route from kindergarten through post doctoral fellowships, do we not? The money and the emphasis are wrong, clearly wrong. 80% of the tax money raised for post high school education is used for the 20% who go to college. 80% for the 20%. Only 20% of the public tax money goes to the 80% who want to learn an immediate employable skill. We cannot build effective delivery systems until we are agreed that we are willing to pay the bill. I have heard many things about education, not all affirmative. Business people, and I have listened to many, say that American education is unreal. Where else do you find advanced Algebra taught in the third grade and remedial reading in college? I say that is one of the beauties of our system! However, it is time we evaluated where we are and what we are saying, and where we are putting our dollar priorities, before we can effectively build delivery systems for the future. We are going to have to turn the public perception around.

I am told that there was a fifth grade teacher who decided she should evaluate student learning. Evaluation is always important, taking stock of where you have been and where you are. It is

appropriate, and we all need to do it. This fifth grade teacher was in her first year of teaching and she thought she had done splendidly. Quite honestly, she thought she was really an excellent teacher. She had just finished a unit on the parts of the human body, so she decided to evaluate; that of course means to test. She wanted to decide whether the quality of the learning matched the quality of the teaching. She received one test paper which said there are three parts to the human body. There is the brainium, and then there is the borax, and the abominable cavity is the third. Right then she knew she was in trouble, but she went ahead reading the balance of the paper. It said the brainium contains the brains, if any. The borax contains the lights, the liver, and the lings. The abominable cavity contains the bowels of which there are five: a, e, i. o. u. It may be wise for us to stop and evaluate, and test, and see if we are speaking a common language with the person who is paying the bill. We must stop and evaluate now, because though our achievements are many, they are not widely known. Walt Kelly through Pogo said, "An insurmountable opportunity is our problem." The problem very simply is opportunity in work clothes.

Thomas Jefferson believed there were extraordinary capabilities in ordinary people when given the opportunity. If we provide those delivery systems, we will offer the opportunity for that extraordinary capability to become a reality. As we look to delivery systems in vocational education for the future, we should look carefully at each of these possibilities. First, in elementary grades K through six, our programs should result in more "hands on" experience for our young children, so that they may experience some reality and some success. Secondly, an improvement of the relationship between academics and the world in which children really live--not the sterility of a standard classroom. Thirdly, we should place increased emphasis on the basics of reading, writing, and computational skills. It is vital that we do this. That is not an education. It is simply the acquiring of the tools of learning so that the youngster may build his education with those tools. Fourth, we must provide, in elementary school, increased exploration opportunities for our children.

If we are to build this delivery system, we must be honest and realistic. We must have greater parental and patron involvement. Parents are the wheels upon which our delivery system will move. We must bring in the community. We must involve parents in a very significant way. Our fifth and most important reality is greater parental and patron involvement if we are to succeed in today's world.

Sixth, there is a rising emphasis in our land on the Three R's of Citizenship. This must be a part of our delivery system for the future, and these are Rights, Respect, and Responsibility. We must remember that all need to understand and practice the rights of self and of others; Respect of self and for others, and Responsibility for self and others. This is a necessary component if we are to succeed in all of our endeavors. I cannot over emphasize its value. These are the Three R's of Citizenship. Those are also the Three R's of success.

For secondary school students, grades seven through twelve,

1. Implementation of proper delivery systems and opportunities will result in expansion of exploration into broad clusters, across clusters and, within clusters, work exposure, work experience, and cooperative education.

2. We must combine a greater understanding of theory.

3. We must place emphasis on coping skills. Economic education and human relations skills are necessary in that real life.

4. Open entry, open exit opportunities are needed.

5. We must provide increased involvement with adults in community education. As we experience declining enrollment, and as we see an upsurge and an increase in community schools across our land, there will be many opportunities across age lines for students to interact with those in the community.

For postsecondary students, implementations of those opportunities must also be considered. We expect that our elementary/secondary delivery systems will enable our young people to continue earning.

1. Increased curriculum diversity, for postsecondary students, is absolutely essential if we are to maintain the interest, the excitement, the enthusiasm that we developed in elementary/secondary education.

2. Postsecondary students need increased goal or career orientation.

3. We need an increase in postsecondary open entry, open exit offerings.

4. We need to establish private for profit involvement at the postsecondary level. We need increased cooperative education opportunities.

5. We need increased guidance counseling and placement for reentry and career changes. As we begin to really know that education is not a destination, but a journey, we well understand that students need and deserve guidance along the way.

A merger of the academic and vocational professions is in order. It is time we began to respect and understand and appreciate one another. The needs and thrusts of the Department of Defense, Labor, Health, NIE, should be considered. Articulation must become a reality. Someone has said, "the main purpose in life is not to see through one another, but to help see one another through." Let us get our act together, and then begin cooperating for common purposes and common goals. Federal and state legislators must be involved, as well as business and industry representatives, along with parents, patrons, and adacemicians. !mplementation will result in a person who understands his work and can be successful in the world of work. We can cope and survive rapid changes in today's and tomorrow's world, if we are aware of sources for retraining. That factor is very important—awareness of sources for retraining.

Now I have discussed a great number of things. If you are like the old deacon who was really very tired and was praying too loudly because he was a little deaf, then we are in trouble. Because that old deacon said, "Use me, O Lord, in thy work, especially in an advisory capacity." But just one advising is not going to be enough. Our state advisory councils are vitally important and must give council and advice. I become excited when I talk of advisory councils because I really appreciate them. To me, that is one way to accomplish things, to bring a community together, and to tell the s story.

I remember Pogo is supposed to have said, "If everyone would agree with me, everything would be okay." If everyone would agree with us, and would work with us to plan those future delivery systems of vocational education, everything would be okay. I am sure that they can, and they want to; and they will, if we tell our story in concert with others; not standing out there alone, but working with all of the people in our constituency for the common objective. That is preparing our young people for a meaningful, significant, profitable life in the future. Delivery systems for vocational education will change in the future. I know that we here today are on the leading edge of that change.

American education is going to catch up; provide leadership in future years, really explore what is on the other side of that wall. The time to initiate these new delivery systems in elementary/secondary education is now—right now.

The last time I made a major presentation, my husband was there, and when I finished, I went over and sat down beside him. I said, "Ron, how did I do?" He said, "You missed several good opportunities to sit down." That reminds me of the time Alexander Wolcott was in an audience. He was sitting right up front and he didn't care much for the speaker anyway—crusty old guy. He stood up, interrupted the speaker, and said, "My leg has gone to sleep. Do you mind if I join it?"

I suggest to you that you are marvelous people. Able and capable of building a future for our land through your leadership capabilities. Your present role is one of unbelievable importance, if you choose to see it that way, and act!

In closing, I remind you that your life is God's gift to you, but what you do with your life is your gift to God.

FUTURE VOCATIONAL EDUCATION DELIVERY SYSTEMS

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THE CHANGING LABOR MARKET: The paper will discuss some expected trends which will affect the market for labor and, therefore, the kinds of training required. These will include (but are limited to):

The continuing transition from industrial, manual tasks to service occupations. Increased needs for pre-testing, higher levels of competence in basic skills (reading, writing, numbers) and substantially different levels of social awareness will feature this period of change.

New participants in the labor force will change its traditional demographic patterns. Teen-age workers, women returning to the labor market, the three-worker family, and the increased availability of older workers will all provide problems and challenges for the vocational education specialist.

The continuation of new arrivals from ethnic minorities—black, Hispano, Indian and Oriental—will also be discussed as a major aspect of vocational planning.

Circumstances affecting migrant workers—including automated and mechanical farming and the decline of small agricultural employers—will be discussed. Problems here range from bilingual/bicultural concern in vocational education to retraining programs.

Birth rate changes already charted will affect the size of future vocational education constituencies. Plans for this smaller group and an adjustment to what will eventually be a more mature labor resource need to be made now.

CHANGING BUSINESS AND INDUSTRIAL CIRCUMSTANCES: The full impact of automation is just now beginning to be felt. The arrival of a cashless society, of devices which can read handwriting and take oral instruction will change training needs for many.

Improved communication and transportation will make for small inventories, limited production schedules, fewer jobs in these areas, buying, warehousing, inventory control, packaging for modern shipping and delivery systems will change substantially.

Multi-national activities will increase, with a consequent re-identification of tasks performed most inexpensively here and abroad. Domestic training for foreign supervision and training of foreign nationals for some tasks here will be a relatively new area for study. These may be further complicated by interaction with major groups of foreign markets: ECA, for example.

Energy development may require new areas of competence and new models for vocational training. A percentage of these tasks—as well as others developed in high-rate-of change situations (boom towns)—will require a mobile labor force with far more diversified skills.

A service economy developing in a highly sophisticated business environment may require for higher levels of skill than are ordinarily thought of as the output of conventional vocational programs.

One cannot entirely eliminate outer-space outposts as potential users of special forms of vocational training. Speculation about activity on the moon and in satellites continues.

SOME NEW DIMENSIONS AND OLD DIFFERENCES: The debate about the dangers of over-investing in vocational training and steering young people into vocational education as a shortcut to jobs at the expense of liberal education will continue. The paper will deal with the major elements of this discussion and will come down on the side of exercising great care to avoid producing, in vocational schools, "second class" citizens.

Vocational education is now being more broadly defined by many colleges and universities. Facing enrollment declines produced in part by a desire to be "trained for a job," such institutions are changing curricula, developing career ladders at undergraduate levels leading to paraprofessional vocations and/or graduate schools on an accelerated basis. "Profession" versus "vocation" may well be the essential future decision.

Continuing upgrading of job requirements by employers is creating new problems for vocation planners. Thus the substitution of the MBA degree for the undergraduate business degree and the development of the five-year "School of Accountancy" will pose new problems and challenges for vocational educators. Between the computer and the MBA, the range of business training options outside the college and university narrows.

The Junior College/Community College as a new area in which vocational education can reach new levels of activity and value is an important item for discussion. Problems here range from the dangers of creating an "educational slum" to the evaluation of curriculum goals as compared to results which might be achieved on the job without training.

Attitudes toward the private enterprise system, as a part of vocational training goals, are of increasing interest to the business community. Vocational education specialists may find that this may be one of the most controversial and difficult areas of the next decade.

SOME SUGGESTIONS: Use of improved teaching technology to serve constituencies which may not be easy readers, to deal with difficult technology concepts, and to free teachers for more individual counseling.

Establish some minimum requirements for curricula extending beyond actual skill building: the liberal arts areas.

Study and plan for training programs providing alternatives for those replaced by technology.

Examine possible waste growing out of training in areas best studied on the job. School-industry programs need closer scrutiny and new planning.

Ethnic students have special problems. Much can be done here through policy changes.

Adult students, ranging from retrained men and women to post-retirement subjects will increase in number and needs.

A possible new relationship between conventional and innovative vocational training centers and colleges and universities may now be possible.

Careful scrutiny of major professions, including law, medicine, architecture, teaching, for example, should be undertaken to identify possible areas in which some relief can be provided to overcrowded professional schools. This may require new policies with respect to licensing, for example.

SECTION VII: CONFERENCE SUMMARY STATEMENT

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I think there are basically two things I hear you saying: first vocational education has to, and indeed is in the process of, making some major adjustments to the changing labor market and the changing career patterns. In one sense, this is nothing new. You've always phased out buggy-whip courses and phased in new ones like TV repair. Vocational education has always adjusted the curriculum to the job market. But like so much change today, the difference is not only quantitative but qualitative. We heard one speaker state that 55% of the people earning a living now are in industries that didn't exist in 1920. We hear projections that the average American will be changing jobs five to nine times in the course of a career. Mr. David made the point that 55% of the work force in 1985 will be engaged in skills and jobs which have not yet been invented or developed. Whether or not all these figures are accurate, I think the point is a valid one. Vocational educators are training people for jobs which don't exist. You are, as it were, in the position of the astronomer who calculates on the basis of physical laws and mathematics that there's a star out there, even though the astronomer can't see it. You know it's there from the way other bodies near it move; you have to deal with it; but you can't see it. As you look forward to the future that that's exactly the position you are in. The obvious implication of this is that your priority has to be on developing skills, work habits, attitudes, a sense of craftsmanship that characterize groups of jobs or even all jobs. The Office of Education is clearly making a worthwhile stab in this direction in its concepts of clusters. What I hear you saying is that much more of this has to be done, and I would certainly agree.

The second thing I hear you saying is that we are going through a period in which the differences are being bridged between vocational and general education—between occupational education and the liberal arts—at all levels. As I look on vocational education, especially in New York City, where I've had the most contact with it, as an outsider, it seems to me that the image the general public has about vocational education has changed. Vocational education has, in recent years, come of age; come into its own—and you ought to keep this in mind whenever you feel particularly despondent. In New York City the two dozen vocational high schools used to be the "dumping ground"—that was the usual term—for students who couldn't quite hack it in general education. It's no longer that. Vocational educators have no reason not to hold their heads up high in New York City and, I presume, elsewhere, as they might have before. The vocational schools have waiting lists and are no longer "dumping grounds." Some of them are quite selective. They also provide some of the best education that's going on in New York City. This may be a backward compliment on the basis of what's happened to the schools in the last year, but it's true that there's some first-rate education going on in the vocational schools in New York City and people know this. There are a couple of reasons. Obviously the economic situation has affected this with the practical relevance of a vocational education in getting a job. I have my doubts about whether it is a good thing, but more about that later.

Secondly, in addition to the economic situation, it is the fact that vocational schools in New York City, and again, I presume, elsewhere, are no longer terminal. You are no longer locked in a particular career. There's no longer a very clear end to your education.

There are still some students who graduate and then go into the job market. But vocational schools are no longer terminal. Like other schools, they offer options. The education that goes on

is one of expansion, not of limitation. This is a fundamental change and people understand it. We no longer have, or at least we are in the process of eliminating, the two-track system. one for vocational education and one for general education. David Gottlieb made it, and let me just quote the way he puts it: "We can no longer afford the luxury of dysfunctional separatism between those who are committed to the goals of career-vocational education and those who are committed to the concept of general or humanistic education."

Let me say a little bit more about this blending of the general and the vocational. For the general educator in the college with the liberal arts, it means that they have to be more realistic about the extent to which his institution is, in fact, vocational. It's always struck me, as one who's come up through a liberal arts system, that, at least on the higher education level, this distinction between liberal arts and the vocational or occupational has always been overblown. Take the most seemingly irrelevant kind of education you can imagine, the study of the classics. There was a time in 18th Century Europe where this was the norm; where everybody did nothing but study the classics. This sort of education was extremely, narrowly vocational. It was what you needed to hold your own at whatever the 18th Century equivalent of a cocktail party was. Dr. Mitau made the point of career capability inherent in the liberal arts. Many of the liberal arts, he said, are also applied arts, such as writing, research skill development, business, and public mastery of economics and the performing arts. Moreover, he said, they provide saleable skills and provide the basis for professional training in many fields, such as law, journalism, medicine, social work, and teaching. In short, the liberal arts have always had a strong vocational element through them. Likewise vocational education has not been simply as vocational as it has seemed. Last night you heard from an eloquent student who obviously did not simply receive narrow training in certain skills. He was given a first-rate liberal arts education. I think you should pay a lot more attention to the liberal arts, at least more consciously than you do. What I am saying, in effect, is that instead of a two-track system, we must begin thinking about the spectrum of organizing education in this country. It's a spectrum of institutions which are at once vocational and liberal. At one end you may have courses which pay off directly in terms of employment. In others you may have courses which pay off only in the ability to take more courses and for which the direct occupational consequences are indirect, at best. But whether we're teaching mental skills or manual skills or some kind of mixture, we have to begin thinking in terms of a spectrum and not to say, "This is vocational," and This is liberal arts." All programs must have the two basic elements. They are vocational in that, directly or indirectly, they point to the workplace. They're general or liberal arts in that they provide students with broad training that will serve them in the fluid job market ahead. They are also general because even those traditional vocational school courses must include a heavy dose of the liberal arts, for we're developing not simply workers, but people.

I thought Willard Wirtz had as much to say as anybody and I thought he made a number of very valid points. But I disagreed with him about his point of his learning to repair cars. I think that's a misleading kind of analogy. For him, that was not vocational in any traditional sense. That was developing another side of him. For some people, learning to repair cars is directly vocational. For others, it is simply developing what they like to do: developing their skills. The point that he was making though, is a valid one: that the liberal arts, when you are talking about developing well-rounded people, have to give more attention to that kind of skill. Witness the enrollments in all the car repairing courses that you find on campuses and in the women school in New York and so forth.

So basically, I think you are saying these two things: that on the one hand vocational education has to adjust to the changing career patterns in some very revolutionary ways, and that the distinction between the liberal arts and the vocational is breaking down.

As I sat here and began to hear a lot of these ideas, many of them repeated several times, something struck me. And that is, that I really do not hear anybody confronting a major problem in education. That is, I don't really think that any of the major issues confronting vocational education are limited to vocational education. They are the problems of education in general. Take, for example, the problem of educating for change. It has struck me that this is at the core of the problem that liberal arts is facing right now. It used to be that you could define a liberally educated person in terms of content. The Classics education to which I referred earlier consisted mainly of learning certain facts, ideas, etc. from the classics. You learned how Aristotle, Plato, and others approached certain problems, and that made you an educated person. It could be defined in terms of content. By the middle of the 20th Century and a little before, it was obvious that the content of knowledge was much too extensive for this to be possible anymore. So the general education movement developed and we began to define the educated person in terms of certain fields. The liberally educated person knows a certain amount of literature, a certain amount of philosophy, a certain amount of natural science, a certain amount of sociology, psychology, and so forth. Now it's gotten even more complex. You have a proliferation of fields. We now recognize that even the general education was conceived of primarily in terms of Western culture. We have Eastern culture and African culture, and all kinds of other cultures. Thus, any definition of liberal education today the element of change has to be part of it. It's feeling comfortable with change, it's understanding change; qua change, and it's being able to live comfortably with it and to handle fluidity. Now, obviously this is what you people have been talking about. I don't see any fundamental difference between you trying to figure out how you're going to equip some kids with facts of different jobs in the course of a working lifetime than somebody else talking about a liberal education in the context of teaching somebody to handle changing ideas. Changing is something which runs through all education.

The second point—and this is obvious, I suppose—is the need for structural flexibility. We're talking about a new delivery system, about formal and informal education, about campus-based and factory-based or company-based, community-based education, education for credit, education without credit, and so forth. If there's anything that characterizes the whole of education today it's the development of new delivery systems. Professors are beginning to learn that you have to do some teaching at night, instead of the morning, in order to meet the new adult students. This is exactly the problem you've got. But it's also one that's facing every college in the country, or at least virtually everyone.

Thirdly, and this is one that I really have not heard too much about: Dr. Ginzberg, I was happy to hear, made the point in the earlier hour about basic skills. It seems to me that there is nothing more important to equipping kids today to live with flexibility, to be able to adapt to new jobs, and so forth, than to be able to read and write and calculate. Obviously, reading is in trouble today in American schools. The point is that, just as several educators at all levels are grappling with this problem of the apparent decline in reading—and certainly the decline of ability in writing—so this is a major issue for you in vocational education. After all, if a worker is being transferred to a new job and can't read the training manual and make sense of it, then what's the use?

So, I think in these three areas—in the problem of relating to change, the problem of structural flexibility, and the question of equipping people with the basic skills which you need to get on in this society—your problems are no different from those of other educators. I think you ought to keep this in mind when you think and worry and plan and policy-make in this area.

Having said what I hear you saying, I would like to make some observations on what I don't hear you saying but think you should. I think, to put it succinctly, that your analysis of what's happening in your own field and in relation to employment statistics and the job market, and so

forth, is much better than your reading of what's going on in the society around you. Let me tick off some of them.

I don't hear much about the handicapped. The movement to enhance the rights of the handicapped is the latest of the several civil rights movements that we have seen developed in this country over the last 15 to 20 years. As you well know, a little over a year ago Congress passed the Education of All Handicapped bill, which, if nothing else, is pouring into this field. I simply don't hear much talk about this. The planners of the conference did all the right things. There were forums on all the right subjects. I suspect, though, that most of the people who went to the forum on the handicapped were those who were already convinced. I didn't hear much about this in the other forums, and I didn't hear that in the general preparations.

Secondly, I didn't hear you talking much about the need of Native Americans. This is a fascinating problem. It's a serious one and a fascinating education issue. People ought to be thinking about this. Again, it's a minority group which is finding ways in the tradition of the civil rights movement that the blacks began in the early 60's. I don't really hear you taking it very seriously.

Thirdly, of course, I don't hear much about women. If there ever was an area where career patterns and career aspirations are in the midst of flux and where some fundamental assumptions have to be challenged, it's the vocational education of women. You've got women coming back re-entering the work force as they've never wanted to before—after they've had children and the kids are in elementary schools. I didn't hear anybody seriously discuss the educational consequences of this movement. And that's only one. This doesn't even take account of things like the career stereotyping that you do in your curriculum. The GAO report, as I recall, of two years ago, had much to say about this, and the new vocational legislation is going to push you to the wall on it. But I didn't hear anybody grappling with these issues in any serious way here. Finally, I didn't hear you seriously talking about accountability. Other than career education, accountability is probably the most over-worked word in education today. But schools have been notoriously deficient in their understanding of accountability. Again, there's nothing special about vocational education here. As a matter of fact, its probably more true of other areas. If nothing else, you have thought in terms of jobs and how to establish certain measures for your success in justifying your existence. But, as several speakers noted, this is no longer enough. We have lots of competing social goals in this country, all of them valid and worthwhile. The pie is a finite one with a lot of competition among competing and, in many ways, equally valid social programs. But education has always been assumed to be something you spend money on, and nobody thought too much about it. Now it's being forced to justify its existence. And I simply have not heard too much discussion of this from those in vocational education. As I said before, it is a qualitative problem, not simply a quantitative one. If you are changing your goals to preparing people to be flexible, to giving them basic skills rather than simply jobs, the first job-entry kind of skills, then you're going to have to develop criteria for measuring success in doing this. Whenever you change your goals you've got to have different ways of evaluating it. You can't, if you're trying to equip someone for that seventh job 25 years down the line, use a first-job criteria. And I really didn't hear any serious discussion of the new kinds of ways in which you're going to have to be accountable. Let me also assure you that the consumer movement is hitting education with a vengence. The National Task Force on Better Information to Students can have a dramatic effect on the content of college catalogs. There's a woman in a graduate education course. I don't why she ever expected to learn anything in a graduate education course, but the point is, the university council has a problem. The consumer attitude is right up and is looking at you in ways it never has before and, if you're serious about changing your goals, then you'd better be equally serious about finding new ways to evaluate whether you achieve them or not.

So that's what I don't hear you saying. I don't hear you looking at the social forces that are swirling about you and everybody else—the handicapped, the Native Americans, other groups like Mexican-Americans and Chicanos. I don't see you addressing the fascinating case of the career aspirations of women, and I don't hear you really developing new means of accountability.

Let me conclude with some random thoughts which don't follow necessarily any logical order.

The first actually does grow out of the last point. That is, don't get hung up on job placement, at least initial job placement. That's part of your job. For maybe half the kids in a vocational high school, that's the objective. But, if what I said before is true about education, that it must now be preceived of as different styles and different mixes along a spectrum, then you're going to have to judge by your success in making better people, as well as better workers; and the initial job record, which you always mention in the third or fourth sentence in talking about your work, is simply not going to do it. As a matter of fact, for some kids it may be a disservice. Maybe you should be discouraging some people from getting an immediate job even though it makes the statistics look good. Also, recognize that your job-placement record is going to depend on a lot of forces beyond your own control—like how many jobs there are. If you start in a time of unemployment justifying yourself on placement, you may be doing yourself a disservice.

A second random point: much of your popularity at the moment flows from the fact that people are lining up at the doors of vocational schools under the false assumption that occupational or vocational education is the answer to unemployment. This may make you all feel good because maybe you're getting one of your students a job instead of some kid that comes out of a comprehensive high school, but it simply doesn't have much to do with what you're all about. The main sources of unemployment lie elsewhere—in economic policy, in trade balance, in oil embargoes; and if you sell yourself on the basis of that, you may find yourself being blamed several years from now when you don't solve the problem which you can't control anyway. In other words, keep yourself in perspective. You are part of the spectrum, but you're not the whole spectrum. You're not the answer to all the problems. George Counts, in the 1930's made a reference to what he called, America's sublime faith in education," and here again, I'm not talking about something that's limited to vocational education. He said, "Faced with any difficult problem of life we put our minds at rest sooner or later by the appeal to the schools. We're convinced that education is the one unfailing remedy for every ill to which man is subject, whether it be vice, crime, war, poverty, riches, injustice, corruption, race-hatred, class conflict, or just plain original sin." Education has been oversold and has paid a price because it hasn't solved all these problems, and so I urge you to keep yourselves in perspective.

Thirdly (and this is kind of a slippery one), beware of fads. The chicest thing going right now is "career education." Next year, I understand, there is going to be a push to get some federal legislation to develop programs in this. I've heard estimates ranging from perhaps 25 or 30 million, all the way up to 250 million, in terms of career education. There are undoubtedly some serious points to be made by the career education people. Kids today don't have good concepts of the economy; they don't have good concepts of career development. But I have very serious doubts whether career education is the answer to this. I'm not sure whether it can be done pedagogically, by telling some third grade arithmetic teacher to slip in a reference to engineering every time she's talking about fractions or something. And I think there's some flaky thinking going on about curriculum.

Fourthly, I am suspicious about the political climate; not so much of how it originated, as of how it's getting propogated. A lot of people are latching onto this out of the reaction to the campus unrest of the 60's. The assumption is, if you can get kids thinking about jobs and careers, then they

won't come up with all these radical ideas. They'll stay in their place and not be critical. I don't see this as an attitude which is appropriate to any kind of education—vocational or general or what.

I realize there are clear distinctions between career education and vocational education. Those of you in vocational education are really a small part of this whole career education business. I don't think the public is going to make these distinctions as finely as those of you in the field do. I don't think that they are able to understand what career education is, assuming of course, that anybody does. And it may well be this will all go down to your benefit because it will, at least, as long as this particular shooting star is flying through our national skies, it may mean some more money. On the other hand, it really has all the earmarks of a fad, if not in some cases a ripoff; and if I were you, I would be very wary of the direction this goes in. Vocational education had a long and distinguished past before anybody ever dreamed up career education. I presume and hope that it will be there long after career education disappears.

I would like to make one last point. Again, what I'm going to say is not particularly original. It's been said in a variety of ways from this lectern and in the forums. And it's been said much more eloquently than I can. But it seems to me that it does sum up the various points that you have been making and that I have been trying to make in the last few minutes. And that is, simply, that vocational education must serve the whole person. When we say that career patterns are changing, what we are saying, it seems to me, is that vocational education has to serve persons in their maturity as well as their adolescence; in mid-life career crises as well as in childhood career planning; in terms of what he or she can be as well as what he or she is about-to-be or even things that he or she wants to be. When we say that the gap is being bridged between general and vocational education, I think what we're saying is simply that vocational education, like liberal education, deals with the whole person. There are skills, but there are also values and attitudes. There are concrete, saleable skills that are being given, there are also a sense of art and music, and tools to understand the culture. When we say that we have to think of the relationship between vocational and general education in terms of a spectrum, we are, in effect, changing the focus of how we organize education from institutions to people. We're saying that you look at the total needs of the person first, and then that person fits somewhere at the most appropriate point along that spectrum. We're not saying, "Here's one kind of institution, here's another kind of institution; take your pick." When we say that you have to be more aware of the social changes going on about you—it seems to me we're saying that these are people whose lives you are not addressing in the fullest sense. Some people you have excluded systematically from your programs. Certain minority groups, the handicapped especially, simply are not in your programs. You have systematically excluded them as bodies from your enterprises. Many more you have systematically excluded in part. You have said, "We will deal with some of your potential, but we won't deal with all of your potential." The message, then, is that you have to deal with whole people.

What I'm saying might be pointed up by an incident that occurred to me a week or two ago. As some of you may know, there was a report that the Children's Defense Fund a year or two ago called, "Children Out of School," and this is about kids who never really get into the school system. They excluded New York from their sample for some practical reasons—it's tough to get around knocking on doors in New York—so I sent a reporter out to find some of these kids in New York. And she did. And she talked to them using their graffiti names, talked about what they do with their time, and the kind of sub-culture that exists among these kids who have never seen the inside of a school. She said, "What would it take to get you to come back?" She expected talk about a relevant curriculum or something like that. The answer that came back universally was, "a teacher who cares." And these are kids off the streets of New York. It seems to me, if there ever was a lesson of the 60's, it is that people are tired of being treated as statistics. They want to be treated as individuals; they want to be cared for. Look at the T-shirt craze when people were getting their names written on T-shirts so that they walk down the street and everybody knows what their name is.

Everybody knows that there are good teachers and there are bad—in vocational as in general education. Some teachers are fantastic and really care; others are there to work their seven or eight hours and draw a paycheck. That's not going to be changed. There always are going to be good teachers. There always are going to be bad teachers no matter what the circumstances. There will always be teachers who are directly affecting lives. Most of you, I gather, are not teachers but are policy makers. And I would simply like to leave you with the idea that, inherent in all of these trends you talk about (growing ties with liberal arts; need for flexibility; need for a broader base in teaching), there are in these changes and the kinds of changes you are going to have to be making, possibilities to enhance the sense of humanity; to create programs which will address students as full human beings. Dr. Mitau yesterday put it succinctly. He said, "it's the learner, not the institution, which must become the center of our educational planning." This is the point I was trying to make about the spectrum. Maybe the first step would be for you all to get a picture of a student and stick it up on the wall. I don't know what kind of new directions or policies are going to be coming out of this conference, but presumably, there will be some; but I would simply urge you, whatever kind of policy you're coming up with, before you write that last draft, look at the picture of that student and ask, "Is what we are proposing going to help some teacher to address that student more realistically and help him or her to become a fuller human being?"

Thank you.

SECTION VIII: CONFERENCE OVERVIEW AND RECOMMENDATIONS

THE FUTURE OF VOCATIONAL EDUCATION

Albert J. Pautler, Jr.

The following document was prepared by Dr. Albert J. Pautler, Jr., Professor of Vocational Education, Faculty of Educational Studies, State University of New York at Buffalo, at the request of the National Advisory Council on Vocational Education. Dr. Pautler served as a NACVE staff member during the period of his sabbatical leave from State University of New York at Buffalo. The statement was prepared based mainly on the papers prepared for the National Bicentennial Conference on Vocational Education. Dr. Pautler's interpretations do not necessarily reflect the opinions of the National Advisory Council on Vocational or the State Advisory Councils on Vocational Education.

Purpose

The purpose of this paper is an attempt to consider the future of vocational education in the United States, based upon the papers and discussion which took place at the National Bicentennial Conference on Vocational Education. The Conference, held on October 10–13, 1976, in Minneapolis, Minnesota, was sponsored by the National and State Advisory Councils on Vocational Education.

The basic objectives for this paper are as follows:

1. To present an objective analysis of the papers presented at the Bicentennial Conference on Vocational Education relative to the future of vocational education in the United States.

2. To present to the National Advisory Council on Vocational Education a number of issues emerging as a result of the Conference, and discussion which followed the various presentations.

3. To consider and relate the analysis and issues to the legislative mandate of the National Advisory Council on Vocational Education as stated in the Education Amendments of 1976 (P.L. 94-482).

The future of vocational education is of concern to a multitude of people in the United States. This paper should be of interest to legislators and government officials, business, industry, and labor representatives as well as educators charged with the delivery of vocational services.

Background

This document is based upon the presentations and discussions which occurred at the National Bicentennial Conference on Vocational Education, planned and sponsored jointly by the National and State Advisory Councils on Vocational Education.

It was felt that the Bicentennial Year, a time for looking back at our Nation's history and accomplishments, was also a time to look forward to future needs and potential. The purposes of the Conference were to project the needs of the future as related to vocational education, to examine the outside influences which will make an impact upon vocational education policy, and to further consider the need for a national policy for vocational education, as called for in the 1975 report of the National Advisory Council, "A Call For A National Policy on Vocational Education."

Twenty-three papers were commissioned by leading experts in their respective fields, which were to be future-oriented and were to take a "fresh look" at vocational education from differing perspectives. These various viewpoints represented buiness and industry, organized labor, economists, sociologists, political scientists, guidance and counseling specialists, experts familiar with the problems of persons with special needs, education policy makers, and others.

A Conference Planning Committee was formed to handle the program and details involved in such a large and significant undertaking. The presentations decided upon by the Conference Committee were aimed at suggesting what society might be, and how these facts might be related to vocational education in the future. The Conference Planning Committee decided that such a program of work would include six topical areas of concern. These areas were as follows:

- future vocational education delivery systems;
- future international aspects of vocational education systems;
- the demographic considerations of the future;
- what should be taught in the future;
- the special needs of minorities, disadvantaged, handicapped, and women;
- future economic, political, sociological impact on vocational education planning.

The purposes of presentations at the Conference were as follows:

1. To increase the ability of those concerned with vocational education to look at the future.
2. To examine the influence of forces which make an impact on vocational education decisions and policymakers; to explore those factors which may influence vocational education in the future.
3. To ascertain potential vocational education policy framework and guidelines which might be developed to meet the needs and demands of the future.

The Conference was held and presentations made to an audience of over one thousand individuals from a variety of backgrounds including business, industry, labor, government, and education. The Conference is history. The papers are record, and the complete texts will be available through The Center for Vocational Education, Ohio State University, Columbus, Ohio, in the spring of 1977. The National Advisory Council on Vocational Education is giving serious study to the papers, presentations, and reactions from those attending the Conference. This information will be given major consideration as the National Advisory Council continues the development of recommendations for a national policy for vocational education.

Introduction to the Issues

This paper, *The Future of Vocational Education,* represents an attempt to analyze the twenty-one papers commissioned for the Bicentennial Conference on Vocational Education as well as the panelists' and audience reactions at the various sessions. Every effort and attempt has been made to be objective in the analysis of the papers and proceedings of the Conference. As anyone who has ever attempted to do this knows, it is at times easy to become subjective in this type of analysis. The procedures used will be discussed now, before becoming involved in issues emerging from the Conference.

An analysis matrix, in the form of a chart, was used to plot the most commonly stated facts in the papers presented at the Conference. In the left-hand, vertical column of the matrix, the topic of each of the twenty-one papers was plotted. Along the upper horizontal edge of the matrix, the major themes referred to in the papers were listed. This allowed a visual display of the most often cited facts from the various papers. It is from this analysis matrix that a number of major items for concern seemed to surface. Perceptions by others could very well differ from those presented in this paper.

Edward Fiske, Education Editor of the *New York Times,* was the Conference wrap-up speaker charged with giving an overview and summation of what he had heard and read. This summation was treated as one of the twenty-one papers for the Conference and, as such, may be considered a kind of check on the perceptions of the author of this paper. The serious reader and student of vocational education should review every paper commissioned for the Conference.

It is interesting to note that during the course of the Conference, President Gerald R. Ford signed the Education Amendments of 1976 (October 12, 1976), Title II of which concerns vocational education. Section 162 of the Education Amendments of 1976 concerns the role, purpose, function, and mandate of the National Advisory Council on Vocational Education, while Section 105 concerns State and Local Advisory Councils. These new amendments revise the Vocational Education Act of 1963 with such revisions effective in Fiscal Year 1978.

The members of the National Advisory Council on Vocational Education—as well as the Members of the various State Advisory Councils on Vocational Education—must give serious consideration to their respective roles in view of the intent of the Education Amendments of 1976. The future of vocational education—as discussed by those attending the National Bicentennial Conference on Vocational Education—must be considered in terms of the Education Amendments of 1976 for at least the short-term future. The mandate to NACVE is spelled out in most specific terms in Section 162, which states:

The National Advisory Council shall—

1. advise the President, Congress, Secretary, and Commissioner concerning the administration of preparation of general regulations and budget requests for, and operation of, vocational education programs supported with assistance under this Act;

2. review the administration and operation of vocational education programs under this Act, and other pertinent laws affecting vocational education and manpower training, including the effectiveness of such programs in meeting the purposees for which they are established and operated, make recommendations with respect thereto, and make annual reports of its findings and recommendations, including recommendations for changes in the provisions of this Act, and such pertinent laws, to the President, Congress, Secretary, and Commissioner;

3. make such other reports or recommendations to the President, Congress, Secretary, Commissioner, or head of any other federal department or agency as it may deem desirable;

4. (A) identify, after consultation with the National Commission for Manpower Policy, the vocational education and employment and training needs of the Nation and assess the extent to which vocational education, employment training, vocational rehabilitation, and other programs under this and related Acts represent a consistent, integrated, and coordinated approach to meeting such needs; and

   (B) comment, at least once annually, on the reports of the National Commission, which comments shall be included in one of the reports submitted by the National Advisory Council pursuant to this section, and in one of the reports submitted by the National Commission pursuant to section 505 of the Comprehensive Employment and Training Act of 1973;

5. conduct such studies, hearings, or other activities as it deems necessary to enable it to formulate appropriate recommendations;

6. conduct independent evaluations of programs carried out under this Act and publish and distribute the results thereof; and,

7. provide technical assistance and leadership to State Advisory Councils established pursuant to section 105, in order to assist them in carrying out their responsibilities under this Act.

It is in respect to the mandate by Congress—as presented in the Education Amendments of 1976, as related to section 162, National Advisory Council on Vocational Education—that the analysis of the papers presented at the National Bicentennial Conference on Vocational Education be made. This is directly related to one of the objectives of this paper as stated in the section on Purpose, which re-states:

> To consider and relate the analysis and issues to the legislative mandate to NACVE as stated in the Education Amendments of 1976.

The format for the presentation and style used to present the major issues emerging from the Conference couldhave been accomplished in a number of different ways. The one chosen seemed to be the most appropriate for a presentation of this nature. When a direct quotation is used from one of the papers prepared for the Conference, the author will be identified by name only. When other references are cited, the source will be identified in the text.

The major issues emerging as a result of the Conference which are related to the mandate by Congress to NACVE are presented in the next section of this paper.

Major Issues

Many important items and issues were discussed either directly or indirectly during the course of the National Bicentennial Conference on Vocational Education. The analysis matrix, used as a technique to determine the most often-mentioned items, or issues discussed, provided a means to obtain a graphic picture of some of the most frequently stated facts or opinions regarding the future of vocational education. From the matrix analysis, the following areas emerged for consideration:

- age, sex, race, barriers for vocational education;
- curriculum and programs of vocational education;
- vocational education delivery systems;
- factors of employment and unemployment;
- jobs for graduates of vocational programs/placement;
- manpower factors influencing vocational education;
- individuals needing special attention—
  - minorities
  - women
  - handicapped
  - Native Americans;
- need for a national policy for vocational education;
- school-work match;
- job supply vs. demand;
- work force and labor considerations.

After review of the topical items just mentioned, it seemed that—with the purposes of this paper in mind—the major items of concern to vocational education and the work of NACVE could be stated in six categorical areas, as follows:

A. Need for a National Policy for Vocational Education

B. Employment Outlook for the Future

C. School-Work Match

D. Vocational Education Delivery Systems

E. Sex Bias in Vocational Education

F. Groups Needing Special Attention—

—Minorities
—Women
—Native Americans
—Handicapped

No attempt was made to establish an order of priority within the categorical areas mentioned.

215

Each of the six areas—which will be discussed in more detail now—can, and should be considered individually. The order or presentation is one of convenience, rather than priority. Each of the six will be treated as an issue of concern to vocational education and the National Advisory Council on Vocational Education.

A. NEED FOR A NATIONAL POLICY FOR VOCATIONAL EDUCATION

The National Advisory Council on Vocational Education has indicated its concern for some form of national policy in its 1975 report, *A Call for a National Policy on Vocational Education.* This report—plus the sponsorship of the National Bicentennial Conference on Vocational Education—should serve as an indicator to all concerned that NACVE has undertaken a program of work to investigate the need for a national policy on vocational education. The input received from the variety of papers and topics presented at the Conference—along with input received from those attending the Conference—will all be considered by the NACVE Task Force concerned with the study, and investigation of what should be included in a national policy on vocational education.

A number of papers prepared for the Conference made mention of statements of implication dealing with policy formation for vocational education. David, in his paper, "On Thinking About Vocational Education Policy," presented an excellent review of policy formulation and framework in which the process should be undertaken. According to David, "policy making is commonly represented as a problem-solving activity." The framework for policy study which he suggested should be given serious study by those considering the development of any policy statement. It was as follows:

> I turn now to an obvious, but still essential, point to be made in connection with the invention of fresh, strategic approaches to public policies for vocational education. It will not occur unless there is a compelling disposition to undertake four tasks.
>
> One is a disinterested examination of the admittedly over-loaded goal structure commonly associated with vocational education. That is too familiar to you to require delineation by me.
>
> The second task—which flows from the first—is a reconsideration of the expanded number of functions that vocational education is expected to perform.
>
> The third is an appraisal of the larger social and economic policy context within which the federal, state, and local public policies for vocational education are located, and with which they are assumed to interact with some positive consequences.
>
> The fourth task is inquiry into the state of the available knowledge and information that is functionally useful for policy formulation, implementation, and evaluation.
>
> . . . Engagement on these four fronts holds the promise of disturbing existing paradigms of policy thought. By this phrase—"paradigms of policy thought"—I mean to suggest that policies are shaped by sets of ideas that have emerged historically in the pursuit of particular objectiveness and intentions which appear to hang together in some logical sense, and have at least the air of being coherent and mutually consistent.

Policy formulation of any nature would seem to be tied into existing program philosophies that may have set the direction in the past. Those concerned with policy formulation for vocational

education should give serious consideration to the paper by Charles law entitled: "A Search for a Philosophy of Vocational Education," which was presented at the annual meeting of State Directors of Vocational Education in Washington, D.C., in May of 1975. The relationship between a philosophy statement, and a statement of national policy will have to receive careful consideration by those involved in policy formulation.

Kirkpatrick, in his paper "Future Political Impact on Vocational Education Planning" states the following:

> Fifty state programs do not make a national program. Today, that is changed in very important ways. For the foreseeable future, our national political process will make or significantly influence the decisions. National decision makers are likely to insist upon planning at both the national and state levels.
>
> Policy looks to the future. The future, like the past, is contextual. What is needed are various maps of the possible futures. These, in turn, must be evaluated in light of goals, trends, conditions, projections. This is the nexus of problem solving, and of planning.
>
> Reviewing the literature of vocational education . . . I find a plurality of goals, some related to basic values, but most, simply instrumental to a given end. Vocational education, for example, is seen as an instrument for reducing unemployment, not as an instrument providing an opportunity to realize potential of persons unemployed, or employed. Now, I do not argue that it should not do both; what I do argue is that there is too little exploration and statement of basic values; of how programs are related to these, as well as to intermediate objectives we hope to accomplish. There is little effort to establish priorities. In the long run, this failure will have an unfortunate political impact. I say this because vocational education is likely to be justified on the basis of objectives that cannot be realized, at least by vocational education alone.
>
> . . . I find almost no effort at the invention of alternative futures. We need alternative futures based on projections of different rates of unemployment, the impact of demands by women, blacks, handicapped and others who have political clout. Who has adequately explored the need for combining better civic education, better liberal academic education (I do not like the term academic education, but I keep finding it in the literature) with vocation and training? . . . The student in the elementary and secondary school who is college bound needs liberal education.

Kirkpatrick has given vocational education much input for both policy formulation as well as short- and long-range planning, all related to the political situation within our country. Any attempt at the development of a statement of national policy on vocational education will have to give considerable attention to the issue of state control of education and its relationship to any national policy.

Swanson—in relating international education to vocational education in the United States—made the following points:

> First, it is rather important that the field of vocational education remove itself from its role of comfortable detachment from the function of dealing with policy alternatives. The Education Amendments of 1976 have implored the State Boards of Education to consider vocational education policies as its most important task.

Second, vocational education policies and plans require linkage with social and economic goals and purposes. This is not a simple linkage. It requires a common language and a common understanding of the role and function of work and a clearer view of the occupational ladders on which the work force seeks an incentive and reward.

Finally, it is necessary to plan by examining alternative strategies for the future so that human and natural resource policies are considered simultaneously in developing long range plans.

Swanson and Kirkpatrick seem to reinforce one another on the issue of alternative futures and strategies. This seems to suggest that any statement of national policy be flexible enough to meet a number of different economic and social conditions that may exist in our country.

Any attempt at the formulation of a national policy on vocational education must take into account the work of the National Commission for Manpower Policy. In its First Annual Report to the President and the Congress, entitled "Toward A National Manpower Policy," (October 1975), the Commission set forth its objectives and areas of concern in establishing the dimensions of a national manpower policy. In another, later report, "The Quest For A National Manpower Policy Framework (1976)," Ginzberg,[1] in the introduction, stated:

> The writer of the paper appreciates better than anybody that his present effort is not a final product in attempting to delineate what the parameters of a national manpower policy framework might be. It is only a first step in developing a conceptual framework upon which the full scope and dimensions of an overall manpower policy can be constructed. Moreover, he appreciates that the move from the prototype to a finished product will be possible only if the Commission is aided and abetted in its work by a great number of generalists and specialists in all sectors of American life, but particularly in business, labor, community group activities, academe, government, and education.

The Issue – The issue can best be described in the form of two questions: Is there a need for a national policy statement on vocational education? Should NACVE be responsible for the development and sponsorship of such a policy statement:

If it is determined that a National Policy for Vocational Education is desirable, NACVE will play a leading role in the development of such a policy, and will make recommendations to the President, the Secretary of HEW, Congress, and other appropriate agencies.

NACVE Position – The National Advisory Council on Vocational Education reaffirms its earlier statement, "A Call for A National Policy on Vocational Education (1975)," and believes that such a policy would move our nation toward a more efficient educational system. NACVE will continue to study and do the necessary research to determine the need for such a national policy statement on vocational education. The task will not be a simple one, and input from many varied sources, including the National Commission for Manpower Policy, will be sought before such a statement is issued.

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[1] Eli Ginzberg is Chairman of the National Commission for Manpower Policy. Robert T. Hall is Director of the Commission and prepared the paper about which Ginzberg wrote.

The Council Task Force on National Vocational Education Policy will have major responsibility for dealing with this critical issue. Implications for policy decision-making for vocational education can also be associated with each of the categorical areas mentioned in the remaining portions of this report. Each topical area mentioned must be considered in relationship to any statement of national policy for vocational education.

B. EMPLOYMENT OUTLOOK FOR THE FUTURE

A number of papers prepared for the Conference mentioned the rather bleak employment outlook that is presently being forecast for the future. (Ginzberg, Wirtz, Mitau, Levitan, Gottlieb, and Norwood.) Levitan stated the following:

> If the United States Labor Department projections are correct, it is not likely that the economy will be able to generate enough so-called "college required" jobs for almost a million new college graduates every year, and some 600,000 persons with one to three years of college education. This would mean that in some cases, vocational education graduates would have to compete with youth and young adults considered better "qualified" because they have completed some years of college, or have attained bachelors' degrees. It is more likely that many of the college-educated—in order to find their niche in the work force—will displace lesser educated workers who are trained by vocational institutions.

This, perhaps, is more true for graduates of secondary vocational programs than for postsecondary graduates due to the two or more years of age difference, as well as the skill level obtained within a postsecondary vocational program. Levitan continued, stating:

> Whatever the degree of competition for jobs traditionally filled by graduates of vocational education insitutions, the more critical issue is whether there will be enough jobs for those who will be entering the labor force . . . The second factor which will influence the size of the potential work force is the number of families which will want more than one paycheck coming in . . . The prospect of young adults being "crowded out" of the labor market or competent for jobs for which they are over-qualified, isn't pleasant.

Wirtz, in his introductory statement, made the following point:

> The sobering context of whatever may be said at this Conference will be the realization that vocational education, indeed education in general, is being relied on today by the increasing numbers of young Americans to lead to jobs that aren't going to be there when they arrive.

The direction implication of such predictions upon vocational education is indeed most serious, and must have some effect on the philosophical basis of all education, and—most especially—vocational education. Later in his paper, Wirtz made the following statement in this regard:

> To believe deeply in the value of vocational education is to feel strongly that its function goes beyond providing some young people with immediately saleable skills, to include equipping all of them with a vocational versatility essential to both earning a lifetime's living, and finding leisure's—as well as work's—fuller satisfactions.

This latter statement presents a somewhat modified philosophy for vocational education related to the needs of a work force which may have differing needs in the near, as well as distant, future of our country.

219

Ginzberg mentions employability without employment , and this tends to reinforce the positions of both Levitan and Wirtz. He stated that "the wealth of the country resides in the skills of its citizens." Ginzberg made the point that we have to attempt still to increase the number of jobs, in order to get the full value of the dollars spent for vocational education. The delivery system for vocational services may prepare the best qualified individuals with the best technical skills, but employment will escape them if the economy does not, or cannot, provide a sufficient number of jobs for all those who need to, and want to work. This situation will also breed a low level of satisfaction in the work force if well prepared individuals have to take less skilled positions.

Norwood presented many items of interest related to planning for vocational education in connection with the supply and demand of people for various jobs. She stated the following:

> Vocational educators will have a great deal to do. Planners will have to re-evaluate present programs. Changes in population age group size, and projections of the composition of the future labor force, indicate the need for increased focus on the adult population, especially on those who have recently left the teenage group. Women workers—already a large group—will continue to increase. They will need extra help in planning their occupational goals. Employment is projected to increase fastest in those occupations where women have traditionally been employed. Therefore, if they are to succeed in breaking the current pattern of occupational segregation, women will need special help in acquiring the skills required to compete with men. Even more than in the past, black and other minority workers will present a special challenge to vocational educators. Their numbers will continue to increase; their unemployment rates are higher than the rates for whites and their occupational status much lower. . . . Vocational educators would also do well to consider how to provide viable vocational training to the college-bound students, or to the already college educated.

These implications deal with changes in the direction that vocational planners must consider and relate to the delivery of vocational services, as well as to the employment outlook for the future.

Gottlieb—in his treatment of vocational education from a sociological dimension—gave us much food for thought dealing with work. He stated:

> A growing population of well-credentialed, skilled, and upwardly-mobile, angry and frustrated because they are unable to find work which matches individual and societal expectations. With policies enforcing equal opportunities, open admissions, and a rhetoric stressing that with proper skills and educational credentials, the good life is available to all, the national climate has shifted from one of high aspirations to one of great expectations. Those who have bought the promise that with education, training, and the proper attitude, one could write his or her own ticket, will not react passively to a social system which fails to make good its promise. The greater the proportion of the population experiencing discrepancy between career life style expectations and reality, the greater the liklihood of social discontent.

The implications stated by Gottlieb seem to say to all educators that we must use care in making promises to youth that society cannot or will not be able to honor because of economic conditions in the work place. Direct implications for manpower planning and vocational education are that care must be taken in the selection of program areas in which training is to take place. This has been an age-old problem, but one that still needs further research and study if we don't want to be left with an over-supply of well-trained people, and a lack of jobs which meet their level of expectation and training skills. Gottlieb reinforced his point with the following:

From the population side, the profile is one of more and more people acquiring more and more formal education. Unfortunately, however, the match between the two is not accomplished by a simple overlay. The fit between available human resources and available work opportunities as we already know, will not occur without dramatic changes in how we define and organize life and work.

Mitau, in his paper dealing with delivery of vocational education, made the following statement:

It is clear that vocational education can no longer be permitted to be viewed as a demeaning form of "putting people in their places." Increasingly, vocational education should be understood, accepted, and respected, for itself; a highly specific educational program for providing technical and professional skills linked to perceived employment opportunities, and part of a continuing educational process to enable the student to achieve capabilities for his or her own educational and occupational advancement.

Mitau reinforced the position of relationship between vocational preparation and the perceived employment needs of our country but, in addition, made it part of a continuing educational program for life in general, including work and occupational advancement. This seems to tie much of the previous discussion together by implying that if there are jobs at all in the work force, let's make sure that vocational programs are preparing students for jobs that will exist.

The Issue – The basic issue for vocational education to consider is not one that it can face alone; it is a social problem that involves many groups and affects—or will affect—many people. *Will there be enough jobs for those entering the work force?*

NACVE Position – *The National Advisory Council on Vocational Education has considered—and will continue to consider—the relationship between the program of vocational education and the jobs available in the work force of this country.* In its second report (1969) it expressed: "A concern for persons who are flowing into the pool of unemployment as strong as our concern for those already among the unemployed and under-employed." In this same report, it also expressed: "a concern for coordination of vocational education as well as manpower programs.

As part of this concern, the National Advisory Council on Vocational Education calls for realistic career and vocational counseling for all students to help match skill training with available jobs and career opportunities. Recognizing that both formal and informal counseling, advice and information are provided to students about their employment futures, the Council charges the entire vocational education community with the responsibility of maintaining awareness of economic reality, and of local and national work force projections. Exchange of labor market data, as well as information regarding the preparation of students, must become one of the primary goals of local advisory councils, reinforced through the State Advisory Councils on Vocational Education and the State Manpower Services Councils.

The Council cautions, however, that although students must be provided with realistic information regarding employment projections, informed students should be allowed to pursue their occupational interest areas even though competition may lessen their employment opportunities.

Finally, the Council recognizes its responsibilities at the national level, as specified in the Education Amendments of 1976, Section 162, to develop a closer working relationship at the national level between NACVE and the National Commission of Manpower Policy. The National Advisory Council on Vocational Education views this responsibility as providing the potential for national coordination of programs and development of consistent policies between vocational education and manpower training. NACVE will encourage coordination of all guidance, counseling, and skill training programs and related activities at all levels.

C. SCHOOL-WORK MATCH

The relationship between any educational program and the ability to help every citizen provide food, clothing, and shelter for self and family has been a principle of American education. Many of the papers prepared for the Bicentennial Conference on Vocational Education made mention of the relationship between education and work. The term school-work match was selected since it seemed to fit the topical area to be included in the discussion in this section. The relationship between this topic and the two already discussed should be evident. Each must be considered in terms of the other.

This topic emerged from the topical items in the analysis matrix from such sub-topics as the following:

linkages between the educational system and work in society;

will there be enough jobs for high school, postsecondary, and adult vocational graduates;

accountability of vocational programs;

attitude toward work.

In his paper dealing with sociological considerations, Gottlieb makes the following point:

My own assessment of the education-work picture leads me to conclude that the proponents of both vocational and career education have been somewhat naive and on occasion unjust in their orientation. Naive in behaving as if proper skill training and an aggressive work attitude will lead to productive and satisfying employment. Unfair in suggesting that the major problem lies with Americans who are either unwilling, or unable, to take or deal with the business of work and career. Without unduly belaboring the point, I take the position that if we are to enhance payoffs between education and employment futures, it is essential to devote more time and effort to establishing a social system which is capable of absorbing workers and providing workers with conditions which will take advantage of the skills and motivations which these people bring into the work market.

Later in his paper, he states:

Our lesson, I believe, does have implications for advocates of career and vocational education. We can no longer give the impression that degrees and acquired skills alone will be sufficient or a guarantee of meaningful and improved employment. What we can say is that we are dedicated to providing all people with the types of learning experiences which will best enhance their opportunities to pursue the life style they choose for themselves. That we will seek to expose all people to a wide range of ideas, skills, and knowledge. That while we cannot

guarantee the direct employment and career value of the learning experiences provided, we can say with some assurance that our wares will hopefully be of some value in the marketplace, and will help make people better citizens and more understanding human beings.

These previous statements by Gottlieb dealing with the relationship between education and work are reinforced by Wirtz when he states:

> We have talked about "building better bridges between the two worlds of education and work" as though we considered these reciprocal processes. Yet in fact, we have treated only education as a variable, as a lone subject to adjust when the two processes appear to have gotten out of kilter. Work has been taken virtually as a given. So far, the bridge building has all been at one end. There is another approach—not alternative, but complementary. It involves giving as much attention to the work as to the education elements of education-work policy.

This statement about an often-stated concern of education-industry cooperation has received a great deal of attention, and has resulted in many industry-education councils in various parts of the country. Swanson is directly concerned with this same issue when he states the following:

> The policies and the programs which have been employed in the past decade have been concerned almost totally with supply. Vocational education and manpower programs have had a singular goal—the transmission of worker skills to those seeking to enter or re-enter the work force. The pre-occupation with creating a labor supply is always accompanied by the assumption that jobs exist and that vocational education consists of the perfection of a system to match trained workers with the existing jobs.

Vocational educators have always been concerned with the employment outlook of the local area, state, and nation in planning what types of programs to offer. It appears that we must still continue to do this, but at the same time, must give considerable attention to the needs of the learners for the future. Daley—in her concern for the future and what must be taught—states that "vocational education must make special provisions for developing basic career attitudes and skills." She continues with implications for vocational curriculum when she states:

> Counselors and vocational educators must join hands in helping curriculum developers to plan for development of leisure skills and counseling for leisure. . . . Vocational education must become a part of the total curriculum and must be available to all.

Daley sees a role for vocational education in the life and career plans for all children. Counselors and vocational educators—according to Daley—must work more closely together to plan for a curriculum to meet the career needs of all children. NACVE, in its Report "Counseling and Guidance: A Call for Change, 1972," recognized the importance of counseling and its relationship to an outstanding program of vocational education. It recommended that:

> . . . individuals with rich backgrounds of experience in business, industry, and labor, but with no teaching experience, be infused into the counseling system.

In this position, NACVE recognized the value of close cooperation between the school and the business community in the function of counseling.

Davis, in his topic of "Labor and Vocational Education—What Should Be Taught," makes the following point:

It is rather easy to identify the prime concern of non-labor sectors. Government, of course, must concern itself with the national interest. Business needs qualified workers to maintain the highest possible rate of productivity to operate profitably. Educators have the toughest role of all—that of matching curriculum, method and technique to a rapidly changing job market.

This statement by Davis presents the problem about as well as it can be stated.

The Issue – The fundamental question is the degree and quality of the relationship between education and work.

NACVE Position – The National Advisory Council on Vocational Education recognizes the importance of close cooperation between the education program and business and industry. Consideration by NACVE of this issue cannot be investigated in isolation of the two previous issues dealing with Employment Outlook and a National Policy for Vocational Education. NACVE recognizes its role and responsibility under its mandate from Congress in the process of review and administration of laws affecting vocational education. While assessing plans for the future of vocational education, NACVE recognizes that the individual needs of the learner must be given most serious consideration. NACVE makes the following recommendations: *Government and the private sector must develop specific policies that promote the achievement of cooperation (that is, exchanging of personnel for teaching/guidance, sharing of facilities and equipment, and placing graduates) between business and industry and the schools. The imperative factor in cooperation is the individual student learner rather than the organization.* In light of this, it seems that a re-examination of the often-quoted statement, "At the very heart of our problem is a national attitude that says vocational education is designed for somebody else's children." (NACVE, Annual Report, 1969.) A re-examination of this issue may support a statement that vocational education is for all students.

D. DELIVERY SYSTEMS FOR VOCATIONAL EDUCATION

Within recent years, the term "delivery systems" has been commonly used to describe the way in which educational programs are made available to the consumers of educational services. In its broadest sense, educational services in our country are made available (delivered) through the public and private schools. This has taken place in units of organization within various school districts which may be called primary, or elementary schools, middle or junior high schools, and high schools. To expand this list to postsecondary institutions would add technical institutes, community or junior colleges, colleges and universities, including all professional schools both public and private.

A variety of delivery systems for vocational education have been in common usage over the years. Vocational education—in one form or another—can be obtained outside the public school system of this country. The mandate to NACVE by Congress is clearly concerned with vocational programs supported with Federal monies, but the Council realizes fully that vocational education programs are also carried out by other agencies, both governmental and private. Some such areas are:

- Comprehensive Employment & Training Act (CETA) of 1973;
- Apprenticeship programs within various trade unions;
- All branches of the U.S. Military Service;

- Private trade, technical, and business schools;
- Private community colleges and technical institutes;
- Industry-sponsored training-educational programs, including job training, upgrading, and re-training.

More areas could be mentioned as sources of vocational training for individuals not taking advantage of such training in the public institutions of this country. NACVE recognizes the importance of and contributions from these other agencies in their respective efforts to provide vocational services to those in need of such services.

A number of presentations at the National Bicentennial Conference on Vocational Education were concerned with the delivery of vocational education. Warner suggested that the "school must provide experiences which would be more meaningful to the student in the real world," and went on to suggest the following: in-depth intellectual experience; service experience; teaching experience; and exchange experiences.

She suggested that credit be offered for each of the above-listed experiences, and that they be supervised and evaluated by the school district. Warner stated, "I suggest that it is attitude, not aptitude, that is the primary force in success."

Mitchell mentioned the influence on the delivery of vocational services of the changing labor market, as well as changing business and industrial circumstances. He offered a number of suggestions, including the following:

Establish some minimum requirements for curricula extending beyond actual skill building; the liberal arts areas.

Study and plan for training programs providing alternatives for those replaced by technology.

Examine possible waste growing out of training in areas best studied on the job. School-industry programs need closer scrutiny, and new planning.

Ethnic students have special problems. Much can be done here, through policy changes.

Adult students—from re-trained men and women to post-retirees—will increase in number and needs.

Gold—in a section of his paper concerned with the handicapped—makes some interesting observations about the future that concern the delivery of vocational services. He stated as follows:

Vocational training programs for persons who have been labeled handicapped will contribute individuals to the labor pool who are so clearly competent at a wide range of specific functions that those things which would preveiously have kept them from opportunities in the world of work will do so no longer.

The Protestant ethnic will continue to lose ground, but a person will continue to be known by what that person does for a living.

The proportion of life skills that individuals acquire outside the school will increase. For some kinds of learning, this means that schools will continue to develop activities outside of the school

building, and be involved in the use of those activities. It will also mean that schools—as entities—will contribute less and less to the educational process.

Post-high school education will be utilized more and more to obtain information not specifically related to vocational goals. . . . Vocational educators might expect to be held increasingly accountable for providing all individuals with a broader set of basic skills such as tool usage, home and auto repair, practical measurement skills, and—perhaps—an even wider range of practical skills.

The whole issue of accountability is one that will have to be increasingly addressed by vocational educators.

Pluralism will continue, but the rules of the game will improve. Most of us in vocational education, special education, and other disciplines and professions, have spent all, or most of our careers existing in a booming economy. . . . If vocational educators are able to demonstrate major gains in the quality and quantity of skills in the people they serve, utilizing resources they already have, they should expect a front-row seat at the trough.

Delivery systems for postsecondary institutions was well covered by Mitau. He suggested a ten point agenda for the future of our system of postseconday education, including the following:

The learner must be the center of our postsecondary spectrum, not the institutions.

. . . more effective teaching, more diverse programs, as well as a greater variety in educational delivery systems.

There is a great need to improve the quality and scope of information available about various education and career options as individuals move through life from adolescence to senior citizenship, stressing bridging the work and education gap, and emphasizing the availability of mechanism for assessment of prior learning accomplished in non-academic settings.

. . . and probably most significantly, let us ask of tomorrow's learner not so much where they learned what—which college or university—from whom they learned what—which professor in which course—*but what they can do.*

"What they can do"—in referring to learners as they are about to enter the work force—seems to remain the single, most important element in the search for a job. It must be noted that attitude toward work or school, and proper motivation on the part of the learner are essential before the skill component can be fully mastered and demonstrated to a potential employer. The vocational delivery system must be concerned with more and more adult learners in need of a variety of programs to meet their needs for retraining, up-grading, second career opportunities, as well as perhaps even preparation for retirement.

Wirtz—in addressing the issue of liberal and vocational types of education—made the following statement:

The point is rather that the right answer would seem to be in a significantly different prescription of education and training—with a substantial mix of *both* . . . although obviously in varying portions—for *all* young people. As the work pattern continues to change, and as the place

of traditional work in life diminishes, the inadequacy of an exclusively liberal arts education is going to become as apparent as the inadequacy of training in some narrow vocational competence.

The Issue – A number of different agencies and organizations deliver vocational education programs to a very wide range of individuals within our country. A variety of educational approaches are used by these organizations to provide vocational training/education to those in need of such services. In view of future projections for our society, including the economy, the basic issue is as follows:

To determine the most suitable methods of delivery of vocational services to those most in need of such assistance. More precisely, what methods of delivery are the most effective from a teaching-learning standpoint? What methods are most effective from a cost-effectiveness standpoint?

NACVE Position – The National Advisory Council on Vocational Education recognizes fully the contribution made by many different agencies and organizations to the preparation of a well educated and experienced work force to meet the needs of our country. Closer working relationships with the National Commission for Manpower Policy will serve as a vehicle for keeping both the Council and Commission informed as to what each one is doing. This is surely a step in the right direction.

NACVE recommends the following plan of action:

1. We recommend that the United States Office of Education (U.S.O.E.) and National Institute of Education (N.I.E.) plan a series of research projects which are as follows:

    a. Given different demographics, what are the most suitable methods of delivery of vocational services to those in need of such assistance?

    b. What methods of delivery of vocational services are the most effective from a teaching-learning standpoint?

    c. What methods of delivery of vocational services are the most effective from a cost effectiveness standpoint?

    d. What are the advantages and disadvantages of a multi-delivery "system"? Since planning is future oriented, how should the State Plan relate to established arrangements that provide similar services?

2. Those responsible for vocational education planning at the National, state, and local levels must give serious attention to delivery programs for adults in need of job retraining and upgrading.

3. We recommend that each State Advisory Council on Vocational Education (SACVE) work closely with the State Manpower Services Council (SMSC) within the state as a means of bringing about communication and coordination.

4. Previous Council studies registered that articulated program planning and implementing could reduce unnecessary duplication. We urge SACVEs to study the degree and quality of articulated programming within and among the jurisdictions of the State Departments of Education and the State Manpower Services Councils.

E. SEX BIAS IN VOCATIONAL EDUCATION

In the Declaration of Purpose of the Education Amendments of 1976 concerning vocational education we find the following statement (Section 101):

> . . . to develop and carry out such programs of vocational education within each State so as to overcome sex discrimination and sex stereotyping in vocational education programs (including programs of homemaking), and thereby furnish equal educational opportunities in vocational education to persons of both sexes.

This statement should make it very clear to the States that Congress wants corrective action to eliminate sex bias in vocational programs. NACVE has been aware of the problem of sex bias in vocational education and was involved in two studies on the subject. PROJECT BASELINE—which was a project monitored by NACVE—makes direct mention of the problem in the 1975 publication entitled "A Report To The Nation on Vocational Education," (report prepared by Dr. Mary L. Ellis). Another report by Maher entitled, "Exemplary Strategies For Elimination of Sex Bias in Vocational Education Programs," was conducted for NACVE. NACVE is aware of the problem, and many speakers at the National Bicentennial Conference on Vocational Education made mention of it. Some of these comments are worthy of note at this time.

Norwood—in her presentation dealing with the demographic and employment perspective for the future of vocational education—shared such information dealing with the labor force composition. Some of her comments follow.

> Today, about forty-five percent of all wives are working or looking for work in this country. In addition, the number of female-headed households has increased, and many of these family heads are in the labor force. In the United States today, the female commitment to the world of work is the strongest it has been for many decades. Many of these women need training—especially those who have been spending time at home to raise a family, or those who have been in unrewarding careers because of job stereotyping when they first entered the labor force. Career aspirations of women are changing fast. Many more women now realize they can pursue careers in other than routine office work and retail sales. Vocational education can help to equip them for more satisfying and financially rewarding positions.

> Available evidence indicates that women have made some important strides in the job market. The growth of women in professional-technical jobs between 1965 and 1975 increased by about two million—more than the increase of males in these jobs. However, the numerical growth of female employment over the 1965-75 period was largest in the traditional clerical and service jobs. Female clerical workers increased by nearly four million, and service workers—except private, household workers—increased by 2.3 million. At the same time, employment of male clerical workers changed very little, and male service workers—excluding private, household workers—increased by only 1.2 million. Significant percentage gains were made by women in craft jobs, but the numbers were small.

The employment of women in the traditionally feminine occupations—many of which are at the low end of the pay scale—becomes even more obvious when we examine the sex breakdown of more detailed occupational classifications. Almost all secretaries are women, 86 percent of all file clerks are women, and women account for 85 percent of all elementary teachers, 97 percent of all nurses, and 81 percent of all librarians.

Norwood continued with a recommendation, which was as follows:

Programs must be established to provide women with information about training available to them for all occupations. Women need better information about where they may learn non-traditional occupations, and they must be told that they can learn to perform well in jobs previously reserved for men.

Without proper information and guidance, the occupational choices that women have made over the decades are likely to continue.

Gottlieb—writing from a sociological base—made the following points:

What we can anticipate, I believe, is a growing expectation upon the part of American workers that work opportunities be more plentiful; that work settings be more responsive to the physical, psychological, and health needs of the individual; that barriers be removed so that age, sex, race, and educational credentials are not primary criteria for occupational entrance, or mobility; that work structures and settings be more flexible and more in tune with varying life styles; and that workers be more actively involved in decisions which will affect their performance and needs.

Young women and older women will—in growing numbers—demand access to careers which have traditionally been considered to be the exclusive domain of males. Increasing numbers of women will no longer be content to restrict themselves to part-time work, to work as teachers, social workers, to work which does not offer the same rewards and challenges as those available to men.

Daley alludes to the same problem in her statement:

A further revelation is that the legislation authorizes federal grants to extend, improve, and where necessary, maintain vocational education programs and authorizes programs of vocational education to *overcome sex discrimination and sex stereotyping.*

This statement is related directly to Section 104, State Administration, Education Amendments of 1976, which indicate that each state shall reserve $50,000 from its funds under Sub-part 2 (State Grants) to provide such full-time personnel as may be necessary to identify and eliminate sex bias and stereotyping in vocational education programs for students and employees, and to make such information available to National and State Advisory Councils, State Commission on the Status of Women, the Commissioner, and the general public.

Davis states, "vocational education schools will have to take a fresh look at the special problems of women." He continued with the following:

As women train for employment in the non-traditional occupations, courses relevant to the question of adjustment to the world of work will be needed for those forced into the job

market for economic reasons. Career women would, of course, probably have the same difficulties as men, even though they have pre-planned their entrance into the labor force.

Many others made mention of the number of women already in the work force—or who will be entering it in the future—and the problems of sex bias in the delivery of vocational education services. (Ginzberg, Kirkpatrick, Gibson, Fiske, Mitau) In addition, the literature on this subject is rather comprehensive, and numerous conferences have already been held dealing with the role of women in the labor force.

NACVE is aware of the issue of sex bias in vocational programs, and its relation to other segments of society. When women are trained in non-traditional, female occupations by vocational schools, the problems of placement and employment still loom large in many cases. The consumation of the marriage between education and work must be a joint effort on the part of placement workers in the schools, and employers within industry and business. Vocational programs are able to prepare large numbers of women for non-traditional, female occupations, but if these graduates are not successful in obtaining employment in their fields of specialization, many unhappy and dissatisfied individuals will emerge. NACVE supports a program of vocational education that assures equal exposure of both sexes to opportunities that exist across all occupational fields. The Council is concerned with the need to eliminate sex bias in vocational education as well as the larger issue of sex discrimination in all of society.

Two pieces of legislation have brought the issue of discrimination by sex to the attention of the vocational education community. The regulations released in July 1975 for Title IX of the Education Amendments of 1972 have indicated that segregation by sex is illegal. Positive steps must be taken to ensure access to vocational education programs for all students. It is stated in the regulation that "a recipient may be required to undertake additional recruitment efforts for one sex as remedial action."

The Issue – The issue and the mandate of Congress to vocational education and to NACVE is clear. The problem will take time to eliminate, and involves many different segments of society in its solution. The issue is as follows:

To devise a plan of action to overcome sex discrimination and sex stereotyping in vocational education.

NACVE Position – The National Advisory Council on Vocational Education commends the initiative of the U.S. Office of Education, particularly the Bureau of Occupational and Adult Education, in establishing the issue of sex-role stereotyping as a major priority. OE-funded research and development and curriculum projects during the last two years have provided the foundation for developing and implementing plans to overcome sex stereotyping in vocational education, in an effort to enable men and women to enter the labor force on the basis of their occupational skills, regardless of sex.

The decision of USOE to again collect enrollment data on the basis of sex will provide much needed information to NACVE and to the SACVEs as they examine the progress of educational institutions in implementing their plans to overcome sex bias. Additionally, the Council suggests that OE and the State Advisory Councils consider involving representatives of knowledgeable women's organizations and women concerned with the education and employment problems of females, when evaluating and/or planning programs to overcome sex stereotyping.

NACVE will share ideas and recommendations with the National Advisory Council on Career Education and the Council on Women's Education in an effort to develop a cooperative approach to eliminating sex stereotyping. The Education Amendments of 1976 place heavy emphasis on the importance of providing equal educational opportunity to all individuals, without differentiation on the basis of sex. As NACVE evaluates the administration of the Act, particular attention will be paid to the effectiveness of the U.S. Office of Education in providing leadership and insuring that State Plans implement the provisions of those plans regarding the elimination of sex stereotyping. NACVE encourages SACVEs to pay particular attention to this new emphasis in the legislation when preparing their annual evaluation reports.

F. GROUPS NEEDING SPECIAL ATTENTION

NACVE, since its very creation by Congress, has demonstrated an interest in many different groups in its attempt to strengthen the national programs of vocational education. Mention of these special concerns should again be made.

1. In its *Second Report* (November 15, 1969), it stated:

   A concern for directing the disadvantaged into the mainstream of vocational and technical education as career preparation, rather than separate programs.

2. In its *Third Report* (July 10, 1970), it was again concerned with the disadvantaged, as well as the dropout. It stated.

   Schools should invest as much in follow-up and counseling for those who drop out as for those who remain in school. School systems need to establish programs for the young people who have had their first employment, and are ready for further education.

   Give priority to programs for the disadvantaged without separating the disadvantaged from the mainstream of education.

3. In its *Special Report* (February 1, 1972), it recognized the special employment problems of the Vietnam Veteran. The Council made four recommendations, including the following:

   . . . that greater emphasis be placed on vocational education, and job training under the GI Bill.

4. In its *Special Report* (December 1973), it recognized the special need for Indian Education. In this report, the Council made seven recommendations, including the following:

   Indian vocational education needs improvement. Secondary level vocational programs must be drastically increased. Basic education must be taught, but it must be much more carefully job-related than in non-Indian schools. Technical training at grades 13 and 14 should be enlarged, their curricula developed in close collaboration with the industries in which these Indian graduates will be placed. Students should be encouraged to remain in those programs long enough to qualify for supervisory and leadership roles.

5. In its *Report on Urban Education* (December 6, 1975), the Council reported on its series of hearings conducted in five major cities, dealing with the status of vocational education

231

in urban areas. The Council made seventeen recommendations dealing with this subject. Four recommendations concerned the federal level; six concerned the state level; and the remaining seven, the local level. A few of these will be re-stated:

That Congress enact a special program of crash-funding of vocational education to urban areas without reducing funds to rural and sub-urban communities. (Federal level recommendation.)

That vocational education be made available to all city students who need it. (Stafe level recommendation.)

That all vestiges of discrimination based on race, sex, and national origin be eliminated from vocational courses, and career guidance, counseling, and placement. (Local level recommendation.)

Various papers prepared for the National Bicentennial Conference on Vocational Education have again cited the need of various groups for special attention within education and especially vocational education. Some mentioned were: handicapped, disadvantaged, minority groups, unemployed or underemployed youth, Native Americans, women.

Many of the problems associated with women in vocational education are covered in the section entitled, "Sex Bias in Vocational Education." The following comments from a variety of papers should be noted.

Swanson—relating international issues to our own situation in our cities—made the following point:

Cities are becoming reservoirs of the untrained or the inadequately trained cadres of the poor, and the otherwise disadvantaged. If the affected cities survive, and contain their erosion of resources, the vocational training issue will emerge shortly thereafter to present a common and a relatively new problem whose dimensions are international in scope, as well as national.

Wirtz—in citing recent figures from the Bureau of Labor Statistics—made the point that the unemployment rate among the 16—19 year age group is twenty percent—three times the adult rate, and the highest that it has been in the thirty-five years these records have been kept. He indicates that this is high above the rate of any other comparable country in the world. He stated, "for those in the double jeopardy of being both young and black, the reported rate is now running between 35—40 percent."

Gold presented the issue of the handicapped, and the function that vocational educators may render to this group. He stated:

Vocational training programs for persons who have been labeled handicapped will contribute individuals to the labor pool who are so clearly competent at a wide range of specific functions, that these things which would previously have kept them from opportunities in the world of work will do so no longer. Business and industry will come to recognize the advantages of revising their recruitment, hiring, training, and supervisory practices, so as to gain access to this valuable labor source.

Vocational educators could provide these citizens with many of the critical skills needed for full, successful participation in society. For many of these skills, vocational educators are the only logical and competent source.

Dupree addressed the topic of Native Americans' need for vocational education. He concluded his paper with the following:

> In summation—if, (1) the image of vocational education is improved, and our country's educators include career and vocational education equally with academic education,
>
> (2) Native Americans are included in all planning and policy development,
>
> (3) long-range, direct funding to Native American populations becomes a reality,
>
> (4) more Native Americans become vocational education instructors,
>
> (5) alternative vocational education programs are geared to Native American communities,
>
> and (6) Native American are given the *choice* of developing their tribal, natural, and human resources,
>
> we vocational educators will be contributing to the "how" of improving Native American vocational education programs.

Norwood—in writing about the need for more counseling for women—expands the concept when she mentions the following:

> The situation is even more critical for blacks, Spanish Americans, and other minorities, and in this respect, the challenges in providing guidance and training to them will be even greater. These groups continue to lag behind the white majority in terms of formal education and skills. And, of course, this is reflected in their large concentrations in low-paying, dead-end jobs.
>
> The black population is growing faster than the white, and this is expected to continue into the future. This means that—proportionately— more of the young people reaching working age in the next decade will be black.
>
> Although the Spanish American population is smaller than the black population, the Spanish American group is somewhat younger than the black group. . . with larger numbers of Mexican Americans, Puerto Ricans, and others entering the work force in this country in coming years, the demands on vocational education programs tailored to meet the needs of these workers will undoubtedly increase.
>
> It is clear then, that the future will bring even greater demands on vocational education programs in meeting the needs of the disadvantaged.

In addition to those papers which have been quoted, mention was made of special groups by the following individuals as well—Daley, Gottlieb, Davis, Mitau, Fiske, and Kirkpatrick.

The presentations at the Bicentennial Conference on Vocational Education have again brought to the attention of the Nation, and the National Advisory Council on Vocational Education, that special groups within the population of our country need special assistance. It appears that progress has been made in a number of special areas of concern, but more still needs to be done to guarantee equality of education to all in need of vocational services.

The Issue – The National Advisory Council on Vocational Education has addressed many of the problems that exist in the delivery of vocational services to certain segments of our population.

The Bicentennial Conference has re-stated the problem in a variety of ways which will be considered by the Council.

The issue is: certain groups of our citizens have special problems which need special help and assistance in the delivery of proper vocational instruction. These groups include—but are not necessarily limited to—the handicapped, Native Americans, minority groups, disadvantaged, women, and unemployed and underemployed youth.

NACVE Position – The National Advisory Council recognizes the renewed emphasis placed on the special needs categories in the new Vocational Education Act. Through its Task Forces and other activities, the Council will closely monitor and evaluate the implementation of the new legislation as it relates to those special needs, and will make recommendations for regulatory or legislative changes, as needed, in this and other laws, to help insure that persons with special needs are effectively served.

The National Advisory Council on Vocational Education was created by Congress through the Vocational Education Amendments of 1968. Its members, drawn from business, labor, education, and the general public, are appointed by The President. The Council is charged by law to advise the Commissioner of Education concerning the operation of vocational education programs, make recommendations concerning such programs, and make annual reports to the Secretary of Health, Education, and Welfare for transmittal to Congress.

The Center for Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The Center fulfills its mission by:

- Generating knowledge through research
- Developing educational programs and products
- Evaluating individual program needs and outcomes
- Installing educational programs and products
- Operating information systems and services
- Conducting leadership development and training programs